

FAA Enterprise Network Services (FENS)
Industry Day Questions and Answers
April 25, 2018

Contract Structure and Acquisition Strategy

1. In the interest of providing innovative and flexible services, how does the Federal Aviation Administration (FAA) envision a Section B Contract Line Item Number (CLIN) structure to enable this concept?

FAA Response: As part of the envisioned Service Catalog approach, the FAA intends to provide offerors with the flexibility to propose a cost structure for Section B that aligns with their proposed service catalog.

2. Has the FAA considered the Networkx contract for the FAA Enterprise Network Services (FENS) procurement acquisition?

FAA Response: Enterprise Infrastructure Solutions (EIS) is the successor to GSA's Networkx contract. The FAA is considering EIS in the formulation of its acquisition strategy for FENS.

3. How will the acquisition reward or reinforce innovation?

FAA Response: To the FENS program, innovation means being open to new and developing technologies and processes that provide efficiencies in resource utilization, cost, or schedule. The source evaluation criteria for FENS are expected to reward and reinforce innovation by placing an emphasis on solutions that are scalable, flexible, and adaptable to meet current and future requirements.

4. Have you considered a 2-phased procurement where Phase 1 is a concept development phase with multiple awards and Phase 2 is the implementation with a single award?

FAA Response: A two-phased procurement was considered, but it has been ruled out as an approach.

5. Are you contemplating FENS as a single award or a multiple award contract?

FAA Response: Section M.3 of the draft FENS SIR indicates that "The Government intends to award one contract but reserves the right to award more than one contract or no contract as a result of this SIR."

6. In what ways will the FAA be willing to split the contract?

FAA Response: The options for partitioning the scope of services into multiple contracts are being assessed as part of the FAA's investment analysis. No decisions have been made at this point.

7. How will FAA work with the DOT's EISS effort? (consolidation and re-compete effort)

FAA Response: The FAA assumes this question pertains to the DOT's Enterprise IT Shared Services (EITSS) program. Plans to work with DOT's EITSS program are being developed by the FAA's AIT organization.

8. When you say FENS is services-based, what does that mean to you? i.e., You just pay for bandwidth?

FAA Response: Services-based means that the FAA's focus is on ordering individual communications services and the FAA is not buying equipment or paying for a specific network capacity. In a services-based contract, the service provider is responsible for the design, engineering, provisioning, implementation, operation, and maintenance. The FAA understands there are more costs than just bandwidth and is open to a range of cost recovery models.

9. Can additional details be provided on Service Acceptance Activities identified in Draft SIR 1 Statement of Work (SOW) C.4.2.5 Infrastructure and Service Verification and Inspection and Acceptance Section E.3 Final Inspection and Acceptance (b) Service Acceptance?

FAA Response: Service Acceptance Testing must be performed by the Contractor upon delivery of each new service and modification to an existing service. The purpose of the Service Acceptance Testing is to demonstrate that the service is performing as required per the Government's service order and the performance specifications defined for the particular service. Successful completion of Service Acceptance Testing is required before the Contractor can bill the Government for the service. The FAA is open to options for automating the service acceptance process to minimize workload of both the contractor and the FAA while still achieving the purpose of the service acceptance process.

10. How does the FAA plan to mitigate risk in transitioning to NextGen's requirements with procurement and contracting? Will it have metrics on performance?

FAA Response: The FAA intends to mitigate risks associated with the transition to FENS through detailed transition planning in collaboration with the FENS service provider and FAA stakeholders. The FAA expects there will be metrics on performance.

11. Will the solicitation cover all domains? National Airspace System (NAS), Mission Support, and R&D?

FAA Response: The current plan is for FENS to cover all domains. This question is being assessed as part of the FAA's investment analysis.

12. How does the FAA foresee the management of the parallel contracts - NexComm, New Voice Switch, TDM to IP (New Program FY18).

FAA Response: The contracts will be managed by separate program offices within the FAA's Communications, Information, and Network Programs (CINP) Group. The FAA Program Management Organization (PMO), Enterprise Services, and CINP Group will provide higher-level oversight of the related programs to ensure efficient, collaborative, and complementary use of resources to achieve shared objectives.

13. Would the FAA be looking to integrate other contracts in this contract, such as SWIM, and DataComm?

FAA Response: The Draft SIR #2 released on July 31, 2018 indicates the FAA's planned scope for the FENS contract.

Potential Requirements

14. Will there be small business requirements?

FAA Response: Yes, Small Business Subcontracting Goals will be stated in the FENS Screening Information Request (SIR).

15. Will the FENS Program Management Organization (PMO) be providing architectural direction on system design and testing/validation of implemented systems?

FAA Response: The FENS PMO will not be providing architectural direction on system design; However, the FENS architecture and its implementation will be subject to the FAA's Security Certification and Authorization process. In addition, the FAA Program Management Organization and the FENS Test and Verification team will review and approve the FENS contractor's proposed test procedures and review test reports produced by the Contractor. The FAA may also conduct independent testing of FENS services prior to operational deployment.

16. What are the FAA's requirements for data in terms of moving towards industry's offerings for FENS requirements? (This question refers to industry offerings such as Cloud, on-premise solutions, data mobility, and security.)

FAA Response: The FAA intends to state its requirements in terms of functions and performance. Offerors will have the flexibility to propose solutions to meet those requirements.

17. What are the top priorities for FENS in considering "point of access" for data in regard to on- and off-premise and security?

FAA Response: The FAA has embarked on an Enterprise Information Management (EIM) initiative that is focused on managing FAA data at an enterprise level. The System Wide Information Management (SWIM) program is a component of this strategy. Points of access and data management technologies will evolve as a part of the EIM initiative.

18. With a primary goal of expressing requirements to create the opportunity for solution innovation, what are the current FAA Telecommunications Infrastructure (FTI) "specific implementation requirements" you will eliminate or significantly restructure to facilitate this goal?

FAA Response: The FAA tries to avoid defining specific implementation requirements. With respect to differences between FTI and FENS requirements, please review the presentation provided during FENS Industry Day. Further details on the FAA's requirements for FENS have been provided in the Draft SIR #2 released on July 31, 2018.

19. Will reliable power be part of the solicitation?

FAA Response: The FAA has the primary responsibility to provide power. However, the FENS contract may include requirements for the Contractor to provide back-up power when needed.

20. Service Ordering (Real-time and Non-Real-Time) – Does the FAA envisage some involvement/access to carrier provisioning systems?

FAA Response: No. The FAA envisions that the FENS contractor will provide a tool suite that enables the FAA to place orders for services and initiate service provisioning.

21. What is the FENS percent utilization target or current FTI percent utilization?

FAA Response: The FAA does not plan to define utilization targets as part of the FENS requirements. The current FTI percent utilization is not relevant to the FENS program.

Technology

22. With FAA circuits currently being predominantly Time Division Multiplex (TDM), how does the FAA envision evaluating new offerings such as Network Function Virtualization/Software Defined Networking (NFV/SDN)? (Given the benefits of these technologies are achieved with Internet Protocol (IP) circuits and the transition from the current TDM circuits to IP circuits is unknown as far as timing.)

FAA Response: Proposed solutions will be evaluated based on their ability to meet FENS requirements including their ability to support the FAA's projected service demand model. The FAA expects to release a preliminary version of the service demand model with the draft SIR that is planned for publication later this year. The service demand model will likely include both TDM-based and IP-based services.

23. What technologies will you utilize to ensure successful migrations? Will AI be used?

FAA Response: The FAA does not intend to dictate the use of specific technologies.

24. In FTI-2 Draft SIR #1 dated 25 September 2017, Attachment J-1, FTI-2 Functional and Performance Specification (FFPS), states in the definitions that Network Domains "must be physically isolated from each other." In Section 4, Attachment J-1 states: "Each network domain must have 'Layer 2 separation or better' from the other FTI-2 network domains." Please clarify your position on network domain separation.

FAA Response: The FAA's requirements for domain separation will be clarified in future updates to the FENS Specification.

25. In FTI-2 Draft SIR #1 dated 25 September 2017, microwave and satellite resources were not mentioned. Will microwave and satellite resources still be considered acceptable transport and/or access mediums?

FAA Response: As a services contract, specific technologies may not be specifically identified in the FENS specification. In general, the FAA is open to the use of any technologies that meet FENS requirements.

26. In FTI-2 Draft SIR #1 dated 25 September 2017, Attachment J-1, FTI-2 Functional and Performance Specification (FFPS), Section 2 Applicable Documents identifies FAA Order 1370.121, FAA Information Security and Privacy Program & Policy as a "...possible applicable document..." FAA Order 1370.121 (see [i] below), in part, defines the separate domains under the preview of the FAA CISO. Specifically, paragraph 4.1, subsection c states (emphasis added) Each of the three domains (Mission Support, National Airspace System, Research and Development) represents a separate security perimeter with a distinct set of security controls and segregation requirements from the other domains and external entities. Can the FAA provide further clarification regarding:

- a. The planned applicability of FAA Order 1370.121 to the FENS contract; and
- b. Additional clarification relative to the necessary “security controls and segregation requirements from the other domains and external entities” that will be required by FENS.

[i] Federal Aviation Administration’s (FAA) Information Security and Privacy (IS&P) Program and policy, 12/23/16

FAA Response: The FAA's security requirements will be clarified in future updates to the FENS Specification. At this time, the FENS Program Office expects that FAA Order 1370.121 will be applicable to FENS, however it should be noted that the FAA is currently working on updates to Order 1370.121. The FAA also intends to provide prospective offerors with a completed list of the tailored security controls that will apply to FENS.

27. Every day, more and more planes are becoming Wi-Fi-enabled. What is your vision for leveraging this technology for FENS?

FAA Response: The FAA does not envision Wi-Fi used on commercial aircraft as within the scope of the FENS program.

28. Can more details be provided on the expected transition requirements and constraints?

FAA Response: The FENS Draft SIR #2 released on July 31, 2018 contains a Transition Constraints document (Attachment J-4). The FENS Program Office expects that it will be further refined to include additional details with the release of the final SIR.

29. The current FTI NAS network is on an all-TDM core with growing IP requirements riding on top. Do you expect the FENS NAS network to be all-IP at the core with declining TDM requirements riding on top?

FAA Response: The FAA expects the number of TDM service requirements to decline over time and the number of IP services to increase. The FAA is open to architectural approaches that can meet FENS requirements.

30. In order for FENS to transition away from legacy technology such as TDM-to-IP, the NAS systems must transition accordingly. What efforts are underway for NAS systems to transition away from legacy technologies?

FAA Response: The FAA has established a specific TDM-to-IP program to address this challenge.

31. Most of the existing FTI network is made of private T-1 lines based on TDM technology. As we know, TDM is being phased out. What are the FAA’s plans on transitioning to IP?

FAA Response: The FAA plans for transitioning to IP are being executed under the TDM-to-IP program identified in the response to Question #30. The migration to different networking technologies is a continuous process that occurs under the legacy FTI program and is expected to continue under the FENS program.

32. As carriers move away from T-1s, what are FAA's plans as they migrate to IP?

FAA Response: See the response to Question #30. In general, the FAA has defined a three-pronged strategy that will be applied depending on the readiness of the individual NAS systems: (1) Modernized NAS systems so they become Native IP users; (2) Implement a conversion capability within the NAS system so that it can utilize IP-based services; and (3) Implement a conversion capability within the network for NAS systems that still have TDM-based interfaces.

33. The carriers are not supporting TDM going forward. Is this being addressed?

FAA Response: Yes, it is being addressed. See the responses to Questions #30 through #32.

34. Are mobile networks a consideration for connectivity or back-up?

FAA Response: The FAA's requirements for FENS will not dictate the use of specific technologies. The FAA is open to the use of any technology that meets FENS requirements.

35. What are the plans to utilize SDN?

FAA Response: The FAA is not requiring use of a specific technology. The FAA is open to the use of any technology that meets FENS requirements.

36. How does the FAA envision leveraging SDN in their next generation network?

FAA Response: The presentations provided during the FENS Industry Day provide insight into how some newer technologies may be leveraged within the FAA operating environment. They also described FENS goals as they related to flexibility and scalability that might be a use for SDN.

37. Are there any "next generation" air traffic control communication systems installed and operational today (globally) that you can learn from and leverage and/or adapt as a model?

FAA Response: Yes, the FAA is exploring a range of capabilities through its market research for FENS.

38. Is the FAA working with OMB to make current facilities available for 5G?

FAA Response: No discussions with OMB have taken place to date on this subject.

39. How will the FAA acceptance of new technologies, such as 5G, LEO SATCOM and so on, that are limited by internal FAA requirements?

FAA Response: The FAA is open to the use of any technologies that meet FENS requirements. In addition, the FAA is in the process of updating Order 1370.121 which may enable use of some technologies that were limited in the past.

40. How might LTE/5G play in to what the FAA is planning to do?

FAA Response: Subject to the FAA's performance and security requirements, LTE/5G may be an alternative for the FAA where wireline access is no longer supported or a diverse path from existing wireline access is required.

Security

41. Is system security accreditation a FENS contractor requirement? What role do they have in the ATO process?

FAA Response: The system security accreditation is a FENS program office responsibility. There may be deliverables from the FENS Contractor required to support the process.

42. What is driving the reclassification from Federal Information Security Management Act (FISMA) Moderate to FISMA High? What needs to be inside the boundary? e.g., management system, SWIM, etc.?

FAA Response: The NAS is considered a national critical infrastructure and underlying communications is being reclassified as "high" to reflect this. The FAA intends to issue a public announcement on the FAACO website to have follow-up discussions with industry on this subject.

43. Detailed security requirements and expectations including long-term joint investment plans as cyber threats evolve; Special requirements to allow sharing of commercial infrastructure; Special security classifications - FISMA?

FAA Response: The FAA's security requirements will be clarified in future updates to the FENS Specification including FISMA controls and tailored controls applicable to FENS.

44. Would the FAA consider public or hybrid cloud infrastructure? If so, what security requirements would be mandated?

FAA Response: The FAA's security requirements will be clarified in future updates to the FENS Specification. With respect to the question regarding public and hybrid cloud infrastructures, it's not clear from the question as to what portion of the FENS requirement they would be applied. In general, the FAA is open to the use of any technologies that meet its requirements.

Infrastructure and Lab Information

45. What demonstrations and test data will the FAA be asking in the SIR (RFP)?

FAA Response: The draft SIR released on July 31, 2018 indicates that the FAA is currently planning on having the offerors conduct a capability demonstration at a team member facility. "Team member" is inclusive of the prime. Requirements for testing and demonstration may evolve further prior to release of the final SIR based on responses that the FAA receives to the draft SIR.

46. How should hardware OEMs engage with the FAA to place equipment in your testing lab? Is the lab located in Atlantic City?

FAA Response: A lab for FENS-related testing has not yet been established, but the William J. Hughes Technical Center (WJHTC) in Atlantic City is a likely location. The FAA plans to provide specifics in the coming months and further information will be posted on the FAA Contracting Opportunities site. Any vendor participation in a testing lab will be addressed in a separate RFI specific to that purpose.

47. Can you give us more information on the TIC sites you are using? How many, locations, etc.?

FAA Response: The FAA currently uses two TIC sites. One in Atlantic City and one in Oklahoma City.

48. Does the FAA own the current infrastructure, and is there an opportunity to re-use portions to facilitate a rapid transition to a new network architecture?

FAA Response: The FAA does not own the current WAN infrastructure. There is an option with the FTI contract to negotiate ownership of some or all of the infrastructure, but no decision has been made regarding that option.

49. What is the next priority in terms of modes to encompass outside of aviation? Why this mode? DOT claims they will encompass FAA. Where will these two programs intersect between the two agencies?

FAA Response: The FAA is part of the DOT. With respect to the other aspects of these questions, it would be helpful if a clarification could be submitted to the FENS CO to enable us to provide a response.

50. Who owns the intrafacility cable plant?

FAA Response: The FAA owns the intrafacility cable plant within FAA-owned buildings and between buildings in “campus” environments such as the FAA Aeronautical Center and operational environments such as airports (e.g., airport cable loop systems). The FENS Contractor will be responsible for the intrafacility cable plant from the telco demarc to its customer premise equipment.

Funding

51. Has the FAA requested management funds for this project?

FAA Response: Yes, the FAA has requested funding for the full scope of the FENS program.

52. What are the FAA plans for Public, Private Partnerships? (Normally, for PPPs, the Government supplies up-front seed funds, and the Government shares the benefits of multiple uses of the investments.)

FAA Response: The FAA does not have a specific plan for a Public, Private Partnership relative to FENS, but the FAA is open to a range of business models.

53. How does the FAA intend to reward the supplier for newer/cheaper technologies? Will the contractor be able to keep the savings?

FAA Response: Offerors will have the flexibility to propose specific incentive constructs that they believe with the stated objectives for the FENS Program and may otherwise be mutually beneficial.

54. Will the FAA accept commercial pricing models? (No internal auditing of the supplier costs.)

FAA Response: As part of the source evaluation process, all proposed pricing will be subject to assessments of fairness and reasonableness, realism, and balance. The FENS SIR will identify specific areas for which a detailed basis of estimate is required. Any new prices established after contract award will be subject to a fairness and reasonable assessment by the Government. Once a price is established as fair and reasonable, there is no auditing of supplier costs unless concerns arise

with the validity of the information provided by the Contractor to support the Government's determination of fairness and reasonableness.

55. What is the FENS target budget reduction?

FAA Response: The FAA's quantitative investment analysis is still ongoing.

Documents and Dates

56. Existing FTI Data library: When will it be available? (We are assuming pre-SIR.) Detailed data on number of connections, bandwidth requirements, services supported (video, voice, data, QOS etc.) at locations.

FAA Response: As indicated with the release of the Draft SIR #2 on July 31, 2018, the FAA intends to make this information available with the next 30-60 days as part of the sample Traffic Model.

57. Can the FAA share more information on the current FTI network: a) Service Catalog containing details for all currently installed services, b) Network topology examples for critical services (data and voice)

FAA Response: As indicated with the release of the Draft SIR #2 on July 31, 2018, the FAA intends to provide a Sample Traffic Model in the next 30-60 days. The Sample Traffic Model will focus on anticipated communications service requirements through the completion of the transition to FENS. The FAA views this information as having more relevance to FENS than currently installed services and the current network topology.

58. In support of the FAA objective to capitalize on the industry advances in the area of service provisioning, can you, please provide more details on the existing processes utilized on FTI?

FAA Response: Details on the FAA's current operating environment can be found on the FENS public-facing website. (https://www.faa.gov/air_traffic/technology/cinp/fens/documents/) Specific to this question, please see the document entitled, "FTI Program Office Business Processes." In addition, Attachment J-6 in Draft SIR #2 describes the FAA's future objectives related to service ordering and provisioning under the FENS program.

59. Will the FAA/FENS Program Office provide the list of contractors used to support small/remote locations?

FAA Response: If the question refers to the Operations and Maintenance (O&M) support of small/remote FAA locations, that is a Government function; the FAA does not employ contractors for day-to-day support of small/remote locations. If the question is referring to other possible roles for contractor involvement, please clarify and resubmit the question.

60. Are copies of the FAA Telecommunications Services Description (FTSD) available?

FAA Response: Yes, the majority of the FTSD is available for public release.

61. Was FAA Order 1370.121 issued as Controlled Unclassified Information (CUI)? When will it be available?

FAA Response: FAA Order 1370.121 is designated as Security Sensitive Information (SSI) Application to receive a copy must be made to the FENS Contracting Officer who will decide case-by-case whether release is warranted. Release, if granted, will be subject to a signed non-disclosure agreement.

62. What is the draft solicitation date?

FAA Response: FENS Draft SIR#1 was released in September 2017. FENS Draft SIR#2 was released on July 31, 2018.

63. In order to effectively handle transition, industry needs a full inventory of connections including locations, mission requirements, site and installation data, etc. This will also help determine geographic-based teaming arrangements. When will this be provided?

FAA Response: The FAA has provided some of this information with Draft SIR#2. That information focuses on the FAA's future needs under FENS.

64. Will the FAA post a list of Industry Day attendees (by company) along with contact information to encourage and enable industry conversations?

FAA Response: This information has been released on FAACO under Announcement #29240-0003.

65. A job this size warrants a deep capability demonstration. What are your thoughts? Is one scheduled?

FAA Response: The question of whether or not to conduct capability demonstrations is under consideration by the FENS Program Office. The FAA has not yet made a decision on this subject.