1. What is the available funding?
   a. Unspecified.

2. Will the slides from Proposers Day be made available?
   a. Unclassified Information not publicly available can be requested via email (HR001120S0007@darpa.mil). Once DARPA is able to verify your credentials you will receive an email with the requested materials through the DoD Safe Mail site. Frequently Asked Questions (FAQs) will be available via beta.sam.gov as well as DARPA’s ACO page (http://www.darpa.mil/about-us/adaptive-capabilities-office).
   b. Classified slides can be requested via e-mail to HR001120S0007@darpa.mil. Requests should include, at a minimum, the organization name, technical POC name and phone number, FSO name and phone number, CAGE code, statement of facility clearance and safeguarding capability, and a valid address for receiving classified material at the SECRET level via express mail. DARPA will verify the facility clearance and the clearance of the recipient before mailing the classified material. If the classified mailing address is not authorized for express mail, this should be indicated in the request and the addendum package will be sent via registered mail. Please allow at least five (5) business days for processing requests for the slides plus time for delivery.

3. How does DARPA envision multiple awardees working together in the first phase?
   a. Awardees will work independently.

4. Will there be a downselect after Phase 1?
   a. Based upon achievements and demonstrated technical merit during Phase 1, DARPA may choose to not execute Phase 2 options.

5. How many awards for Track A and Track B?
   a. Unspecified. DARPA has no requirement to award both Track A and Track B contracts.

6. Can you elaborate on the motivations and objectives for two separate tracks (with and without Multi-Level Security [MLS])?
   a. DARPA recognizes that a successful implementation of MLS requires system architecture design decisions that could adversely impact modeling and simulation (M&S) performance. DARPA reserves the right to assess system performance as a whole and assess how performer solutions address the overarching objectives of the program, recognizing that this may warrant a compromise between MLS capability and M&S performance.

7. If a team has a subcontractor who can only handle classified information, does that limit them from performing during Phase 2?
   a. No, but they cannot access information for which they are not authorized. It is the responsibility of the prime contractor to develop and enforce an appropriate Security Management Architecture. See BAA sections III.D.1 (p. 25) and IV.B.2.a.(3)(h) (p. 32).

8. Will facility accreditation be provided?
a. DARPA will consider this on a case-by-case basis. See BAA pages 31, 32, 41, and 42 for further information.

9. At the MSIE facility when running a demonstration, will proposers be responsible for protecting against hardware threats, such as SPECTRE/MELTDOWN, which can be leveraged to cross boundaries between virtual machines on the same node?
   a. For GFE: No.
   b. For any hardware not in place or acquired by DARPA beforehand: Yes. Cases such as this will be worked through DARPA’s security office.

10. Is the set of attributes in FreeIPA LDAP to be MSIE mandate/provided, or is it feasible to include a technical approach?
    a. Yes.

11. What is the definition of “kill webs”?
    a. Kill chains are linear. Kill webs are multidimensional.

12. Would DARPA consider SAFE-SiM implementations targeting a commercial cloud (instead of or in addition to the MSIE facility) compliant to the BAA?
    a. Yes.

13. Is agile development of interest? If so, will performers have access to users to help develop user stories and for demonstrating early capabilities?
    a. DARPA expects to work closely with performers. Propose the best solution that you think will meet the BAA objectives.

14. Can you elaborate on MLS ‘policy solutions’ mentioned in the BAA?
    a. DARPA acknowledges that a successful MLS capability is comprised of both technology and policy elements and that frequently, policy lags behind technology advances. If you develop a technology that provides a capability that runs counter to existing policy, identify the conflict and propose a solution.

15. What is the threat model with respect to Adversarial Machine Learning for Dynamic Classification? Are you assuming that an adversary could tamper with Security Guides? Or training data? All of the above?
    a. Given the timeline associated with the SAFE-SiM program, DARPA is interested in more mature solutions that have considered challenges such as this. Low TRL solutions are not likely going to be able to be implemented with the program timeline.

16. Does the DoD have existing Dynamic Classification capabilities?
    a. Not that we are aware of.

17. What level of realism are you seeking for cyber/EM effects? High fidelity cyber M&S requires significant processing, making it hard to run simulations at much faster than real time.
18. Will users be able to specify on a case-by-case basis analytic requirements, metric definitions, an/or types of events they would like to see presented/summarized?
   a. Yes. Performers will create a flexible analytic capability that enable users to define the output.

19. Is there interest in AR/VR on this program?
   a. Yes

20. Is wargaming an area of interest?
   a. No. The SAFE-SiM program will develop a mission-level, constructive M&S capability.

21. What classification will the IOC/FOC models be?
   a. Classification levels including UNCLASSIFIED, SECRET, TOP SECRET, SCI, SAP/SAR.

22. What is the relationship between MSIE and SAFE-SiM?
   a. MSIE is the entire environment, including physical facilities. SAFE-SiM is the program that will execute within MSIE.

23. What is the desired fidelity level for simulations?
   a. Fidelity that supports mission level simulation that meets SAFE-SiM program faster-than-real time and number of entity goals.

24. Are there different Program Managers for the four TAs?
   a. No.

25. Are the outcomes of the seedlings going to be made available to performers?
   a. Prior to contract award, only the information presented during the SAFE-SiM Proposers Day will be made available. Once performers are selected, they will get further access to work done during the seedlings at DARPA’s discretion.

26. Will models included in the target scenario be guaranteed to run faster than the threshold requirements prior to integration?
   a. No.

27. What is the clock speed of cores at MSIE?
   a. Base clock speed = 2GHz, Boost speed = 3.35GHz

28. Will assets operate only in Linux?
   a. No, MSIE will support both Windows and Linux.

29. Will models be delivered along with their native environment (NGTS, ITASE, AFSIM)?
a. Performers will have to establish an End Users License Agreement (EULA) with each of the parent organizations for these systems to obtain the environment. DARPA will facilitate this process.

30. Will source code for models and frameworks be delivered to performers?
   a. As of this date, Yes for AFSIM and ITASE. TBD for NGTS.

31. Will DARPA provide cost information for all modeled systems to support financial analysis?
   a. Yes

32. Does DARPA expect proposals in which the M&S capability is prototyped and refined at contractor facilities prior to installation at MSIE?
   a. Yes, DARPA anticipates that most development will be able to be done at performers’ facilities and that integration will happen at MSIE.

33. How soon after contract award will models and laydowns be available for test?
   a. For the Proof of Concept demonstration, models and laydowns will be available immediately upon contract award. Necessary classified models and laydowns will be available at an appropriate time after the start of Phase 2 to support both the Initial Operational Capability and Final Operational Capability demonstrations.

34. Has anyone defined the classes of phenomenology that need to be represented in the M&S architecture?
   a. No. DARPA expects performers to implement the necessary phenomenology to support the performance and objectives of the demonstrations in each phase.

35. The BAA instructions for Section I: Administrative stipulate that the section may not exceed 2 pages in length (limited to a cover sheet and an official transmittal letter). Should respondents omit tables of contents, figures, and tables and/or lists of acronyms and abbreviations to comply with this limit?
   a. Proposers must comply with the instructions as written in the BAA.
   b. 

36. The BAA states "For TA-3, the Technical Approach must address all program goals described in Section I.B.C."

Is the instruction intended to reference program goals describes in section I.A.2.c (i.e., "A suite of analytical tools ...") or the technical focus area descriptions in section I.B.1.c (i.e., "This technical area focuses on the development on analytical tools ...")?
   a. The line referenced should read “For TA-3, the Technical Approach must address all program goals described in Section I.B.1.c.”

Corrected language incorporated into BAA Amendment 1.
37. The BAA states "In addition to BAA-required milestones defined in Section I.E Schedule/Milestones ..."

We are unable to locate the referenced section of the BAA. Is the instruction intended to reference the Phase 1 and Phase 2 objectives established throughout section I.B.2 Program Phase Structure?

a. The referenced paragraph should read:
   “Include a table of program milestones with completion dates. In addition to addressing the Phase-specific objectives laid out in Section I.B, proposer-defined quantitative program milestones must be defined for at least every 6 months after the start of the effort. Milestones should be inclusive of and consistent with metrics defined in Section I.D. The milestones should represent measureable progressive goals that demonstrate a credible path to the final end-of-program goals.”

38. The BAA states "Milestones should be inclusive of and consistent with ... deliverables defined in Section I.F. Deliverables ..."

We are unable to locate the referenced section of the BAA. Is the instruction intended to reference the deliverables defined in section I.B.3 Deliverables?

a. See answer to Question # 37 above.

Corrected language incorporated into BAA Amendment 1.

39. The BAA states "The SOW must clearly define ... for each phase of the program, specifically

   Phase 1 - Proof of Concept
   Phase 2 - Initial Operational Capability
   Phase 3 - Final Operational Capability"

However, in sections I.B.2.a and I.B.2.b, the BAA only defines two phases (Phase 1 - Proof of Concept and Phase 2 - Initial Operational Capability), with Full Operational Capability defined as a subset of Phase 2.

Should respondents structure their SOW and schedules to two or three phases?

a. The referenced paragraph should read
   “The SOW must clearly define the technical tasks/subtasks to be performed, their durations, and dependencies among them for each phase of the program, specifically

   Phase 1—Proof of Concept
   Phase 2—Initial Operational Concept
   Phase 2—Final Operational Concept”

Each phase of the program (Proof of Concept, Initial Operational Concept, and Final Operational Concept) must be separately defined in the SOW. Include a SOW for each subcontractor and/or consultant in the Cost Proposal Volume. Do not include any proprietary information in the SOW(s).

Corrected language incorporated into BAA Amendment 1.
40. The BAA states, "Successful implementation of this technical area should produce an M&S architecture that is able to leverage representative models developed for use in AFSIM, NGTS, and ITASE (at a minimum), enabling mission-level interactions between representative models developed for all of these frameworks/simulation environments."

We seek clarification on the guidance about using models written for simulations such as ITASE, NGTS, and AFSIM. Is the Government’s intent to connect these simulations together through some infrastructure, extract models from those and run them in some other infrastructure, or both?

   a. As stated in BAA section I.A.2.a.(2):
      "Leverage existing threat, friendly, and other representative models developed for AFSIM, NGTS, and ITASE for advanced kill web concept development and exploration"

Performers are responsible for implementing an M&S architecture that is able to leverage existing AFSIM, NGTS, and ITASE models, whether in their native form or in a translated form that performs in accord with the model in its native environment. The determination of whether the referenced simulations are connected or the models are extracted is at the discretion of each performer.

41. Does the government anticipate that any CUI will be developed during this effort?
   a. Yes. As an example, the slides presented during Proposers Day are Distro F.

42. Does the PM expect that all simulation data and models will be used at execution, regardless of the data/model classification, whereby the MLS architecture should tailor the results/output based on the users access level?
   a. Yes.

43. The first sentence for TA-2 Technical Approach references Table 1 in Section I.B.4, which is identical to the program metrics referenced in the TA-1 Technical Approach on page 28. Is this intended, or should Section I.B.b be referenced here, as in the TA-3 description?
   a. It should be I.B.4. Page 19 of the BAA “Program success will be evaluated against a set of high-level metrics listed in Table 1 below that are oriented toward assessing the performance of the M&S system as a whole and the execution of the mission vignettes described above. It is expected that performers will use these metrics and vignettes to derive and track functional and physical requirements for subsystem development.”

44. Can it be assumed that the Red threat laydown will be unclassified?
   a. Yes. For the Proof of Concept demonstration.

45. Due to the POC M&S demonstration containing only UNCLASSIFIED models, is it intended that the M&S and MLS demonstrations will be conducted independently for the POC demonstration?
a. For the Proof of Concept Demonstration under Track A; it will be up to the performers to “demonstrate a data storage architecture to appropriately store and retrieve both ingested and produced data at all levels of classification, including UNCLASSIFIED, SECRET, TOP SECRET, SCI, and SAP/SAR.”

46. Will a test data set
   a. Question needs further description

47. Are the 100 Gbps ethernet connections inter-rack, intra-rack, or both?
   a. Both. The MSIE environment is 100Gbps inside the rack, with rack-to-rack links at 100Gbps for the SAP cluster; however, there are no inter-rack links for other clusters.

48. Is the 100 Gbps Ethernet connection infiniband
   a. No. Infiniband has been kept separate.

49. Does the time synchronization between compute nodes rely on Network Timing Protocol (NTP) or is it synchronized via a high-precision clock source?
   a. Yes. NTP will be our synchronization source.

50. What IT/IA limitations will be placed upon the M&S architecture by the MSIE computer environment (permissions, logging, file/folder access, network protocol limitations, etc.)?
   a. All efforts will be made to make all network security footprints appear similar, but each network will have its own unique security constraints in place and approved by DARPA IT Security as required. The MSIE compute environment will be following the Joint Special Access Program (SAP) implementation guide (JSIG) and the Risk Management Framework (RMF) for its IT security controls.

51. Does DARPA anticipate additional hardware purchases to be proposed as part of the phase 1 or phase 2 development efforts?
   a. The decision to propose additional hardware is left to the bidder, if they determine that it is necessary to provide DARPA with the best value. Per page 34 section (e) Material/Equipment.

52. The BAA states: “Proposals must be received at DARPA/ACO, 675 North Randolph Street, Arlington, VA 22203-2114”. Shortly thereafter the BAA states: “Unclassified full proposals sent in response to this BAA must be submitted via DARPA’s BAA Website (https://baa.darpa.mil)”. Traditionally, we have seen only classified portions of a proposal response delivered by hand. Is it DAPRA’s intent to only have classified proposals be received at DARPA/ACO, 675 North Randolph Street, Arlington, VA 22203-2114?
   a. That is correct; unclassified proposals should be submitted through DARPA’s BAA website, while classified material should be mailed or hand delivered.
53. For the Proof of Concept Hardware limitations, are the following specs quoted in the RFP, per machine limitations or total allowable hardware for the demo? i.e. can multiple machines be used within these specs?
   16 MD cores (or equivalent)
   128 GB RAM maximum
   a. The Proof of Concept hardware limitations listed in the BAA are the total allowable hardware for the demonstration.

54. Does the proposed solution need to account for uploading data from the MSIE environment to JWICS, SIPR, and NIPR for the analytic data referenced in Table 1, footnote 9?
   a. Yes (Track A only).

55. Is the Prime’s SOW counted against the Technical Volume page count or does it also go in the Cost Volume with the subcontractors/consultants SOW?
   a. BAA section IV.B.2.a.(3)(b) clearly shows that the SOW is to be included as part of Section III: Detailed Proposal Information, which is limited to 25 pages for Track A proposals and 20 pages for Track B proposals.

56. Subawardee Information is not defined in the BAA. What additional information not covered by b.1.6 or the Subcontractor Proposals is being requested? Absent additional clarification, references will be made to a summary sheet preceding the subcontractor proposal section.
   a. "Subawardee Information" expected to be provided in the Cover Sheet is simply identifying each subcontractor and their respective subcontract amounts.

57. The following statement indicates proprietary subcontractor information should be provided to DARPA "upon request". Should the subcontractors upload concurrent with prime submission or have disclosed versions available post submission awaiting further direction? "All proprietary subcontractor proposal documentation, prepared at the same level of detail as that required of the prime, which cannot be uploaded to the DARPA BAA website (https://baa.darpa.mil, BAAT) as part of the proposer’s submission, shall be made immediately available to the Government, upon request, under separate cover (i.e., mail, electronic/email, etc.), either by the proposer or by the subcontractor organization."
   Default: Based on the "upon request", subcontractor disclosed cost volumes will only be submitted after receipt of DARPA written direction.
   a. In those instances when the full proposal will be unclassified, it must be submitted via DARPA's BAA Website as noted on Page 45 of the BAA. When submitting to DARPA's BAA Website, only the prime contractor will access to make the submission. For fully unclassified proposals (submitted via DARPA's BAA Website), the prime contractor is responsible for including as part of the submission subcontract proposals that provide that provide the same level of detail/information as is required for the prime contractors - the only exception being that the subcontractor proposals do not have to be fully disclosed versions (meaning proprietary rates and factors would be excluded - typically this means using fully loaded wrap-rates for each labor category, or similar approach). Each subcontractor should have the fully disclosed version of their proposal available to be immediately provided directly to
the Government upon request (such a request is not typical during the review process, but the fully disclosed subcontractor proposals should be immediately available should they be needed by the DARPA review team).

58. FAR 15.403 requires submission of Certified Cost or Price Information. Although DARPA has indicated proposals will not be compared due to independent SOWs and proposed contract vehicles, evaluation criteria and downselect are still indicated. Therefore, please confirm that certification is not required for bids exceeding $2,000,000. "Note 1: (a) “Cost or Pricing Data” as defined in FAR 15.403-4 shall be required if the proposer is seeking a procurement contract per the referenced threshold, unless the proposer requests and is granted an exception from the requirement to submit cost or pricing data. Per DoD Class Deviation 2018-O0012, dated 13 April 2018, the threshold for obtaining certified cost and pricing data is $2,000,000. Per DFARS 215.408(5), DFARS 252.215-7009, Proposal Adequacy Checklist, applies to all proposers/proposals seeking a FAR-based award (contract)."

Other than Certified Cost of Pricing Data will be provided and Proposal Adequacy Checklist shall not be required based on FAR 15.403-1(c)1(A) Adequate Price Competition

  a. The requirement for certified cost and pricing data applies to all proposals for procurement contracts that exceed the thresholds stipulated in the noted section of the BAA.

59. Small Business Plans are required to be submitted only at Government direction: Pursuant to Section 8(d) of the Small Business Act (15 U.S.C. § 637(d)) and FAR 19.702(a)(1), each proposer who submits a contract proposal and includes subcontractors might be required to submit a subcontracting plan with their proposal. The plan format is outlined in FAR 19.704.

Based on inclusion of the phrase "might be required", a Small Business Plan will only be provided post submission following receipt of DARPA written request.

  a. This interpretation of the requirement stipulated in the BAA is incorrect. The phrase "might be required" pertains to the fact that plan is only required (per FAR Part 19) when the proposal amount exceeds the stated threshold (currently $700,000). Therefore, if the prime contractor is a large business, is submitting a proposal that exceeds the threshold stipulated at FAR Part 19, and any amount of subcontracting (inclusive of supplies and services) is anticipated, a small business subcontracting plan is required to be included in the proposal submission.