Broad Agency Announcement

Active Authentication

DARPA-BAA-12-06

January 12, 2012

Defense Advanced Research Projects Agency
3701 North Fairfax Drive
Arlington, VA 22203-1714

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Part I: Overview

- **Federal Agency Name:** Defense Advanced Research Projects Agency (DARPA), Information Innovation Office (I2O)
- **Funding Opportunity Title:** Active Authentication
- **Announcement Type:** Initial Announcement
- **Funding Opportunity Number:** DARPA-BAA-12-06
- **Catalog of Federal Domestic Assistance Numbers (CFDA):** 12.910 Research and Technology Development
- **Dates**
    - Posting Date: see announcement at www.fbo.gov
    - Proposers Day: November 18, 2011. See Section VIII.C for further information.
    - Proposal Due Date: March 6, 2012 at 1200 noon (ET)
- **Total funding available for award:**
    - DARPA anticipates making multiple awards in Technical Area 1, with typical awards not exceeding $500,000 per effort.
    - DARPA may make one or two separate awards in Technical Area 3, with the total awards in the base year not expected to exceed $500,000.
- **Types of instruments that may be awarded:** Procurement contracts, cooperative agreements or other transactions may be awarded under this solicitation.
- **Technical POC**: Mr. Richard Guidorizzi, Program Manager, DARPA/I2O
- **BAA Email**: ActiveAuthentication@darpa.mil
- **BAA Mailing Address**:
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      ATTN: DARPA-BAA-12-06
      3701 North Fairfax Drive
      Arlington, VA 22203-1714
- **I2O Solicitation Website:**
  http://www.darpa.mil/Opportunities/Solicitations/I2O_Solicitations.aspx

Part II: Full Text of Announcement

I. FUNDING OPPORTUNITY DESCRIPTION

Active Authentication

DARPA is soliciting innovative research proposals in support of the development of new software-based biometric modalities. Proposed research should investigate innovative approaches that enable revolutionary advances in science, devices, or systems. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice.

The Active Authentication program seeks to change the current focus from user proxies (e.g., passwords and CACs) when validating identity on DoD IT systems to a focus on the individual. Within this program, the intention is to focus on the unique factors that make up the individual, also known as their biometrics, without requiring the deployment of additional hardware sensors. Research resulting from this BAA will support that overall program intent by investigating novel software-based biometric modalities that can be used to provide meaningful and continual authentication when later integrated into a cyber security system.

This BAA is being issued, and any resultant selection will be made, using procedures under FAR Part 35.016 (DoDGARS Part 22 for Cooperative Agreements). Any negotiations and/or awards will use procedures under FAR 15.4, Contract Pricing, as specified in the BAA (including DoDGARS Part 22 for Cooperative Agreements). Proposals received as a result of this BAA shall be evaluated in accordance with evaluation criteria specified herein through a scientific review process. The BAA will appear on the Federal Business Opportunities website, http://www.fedbizopps.gov/, and Grants.gov website at http://www.grants.gov/. The following information is for those wishing to respond to the BAA.

A. Background

The current standard method for validating a user's identity for authentication on an information system requires humans to do something that is inherently difficult: create, remember, and manage long, complex passwords. Moreover, as long as the session remains active, typical systems incorporate no mechanisms to verify that the user originally authenticated is the user still in control of the keyboard. Thus, unauthorized individuals may improperly obtain extended access to information system resources if a password is compromised or if a user does not exercise adequate vigilance after initially authenticating at the console.

The Active Authentication program seeks to address this problem by developing novel ways of validating the identity of the person at the console that focus on the unique aspects of the individual through the use of software-based biometrics. Biometrics is defined as the characteristics used to uniquely recognize humans based upon one or more intrinsic physical or behavioral traits. This program focuses on the computational behavioral traits that can be observed through how we interact with the world. Just as when you touch something with

your finger you leave behind a fingerprint, when you interact with technology you do so in a pattern based on how your mind processes information, leaving behind a "cognitive fingerprint."

This BAA addresses the first phase of this program. In the first phase of the program, the focus will be on researching biometrics that does not require the installation of additional hardware sensors. Rather, DARPA will look for research on biometrics that can be captured through the technology already in use in a standard DoD office environment, looking for aspects of the "cognitive fingerprint." A heavy emphasis will be placed on validating any potential new biometrics with empirical tests to ensure they would be effective in large scale deployments.

The later planned phases of the program that are not addressed in this BAA will focus on developing a solution that integrates any available biometrics using a new authentication platform suitable for deployment on a standard Department of Defense desktop or laptop. The planned combinatorial approach of using multiple modalities for continuous user identification and authentication is expected to deliver a system that is accurate, robust, and transparent to the user's normal computing experience. The authentication platform is planned to be developed with open Application Programming Interfaces (APIs) to allow the integration of other software or hardware biometrics available in the future from any source.

The combined aspects of the individual that this program is attempting to uncover are the aspects that are the computational behavioral "fingerprint" of the person at the keyboard. This has also been referred to in existing research as the "cognitive fingerprint." The proposed theory is that how individuals formulate their thoughts and actions are reflected through their behavior, and this behavior in turn can be captured as metrics in how the individual performs tasks using the computer.

Some examples of the computational behavior metrics of the cognitive fingerprint include:

- keystrokes
- eye scans
- how the user searches for information (verbs and predicates used)
- how the user selects information (verbs and predicates used)
- how the user reads the material selected
    - eye tracking on the page
    - speed with which the individual reads the content
- methods and structure of communication (exchange of email)

These examples are only provided for illustrative purposes and are not intended as a list of potential research topics. The examples above include potential biometrics that would not be supported through this BAA due to a requirement for the deployment of additional hardware based sensors (such as tracking eye scans).

B. Program Structure and Description

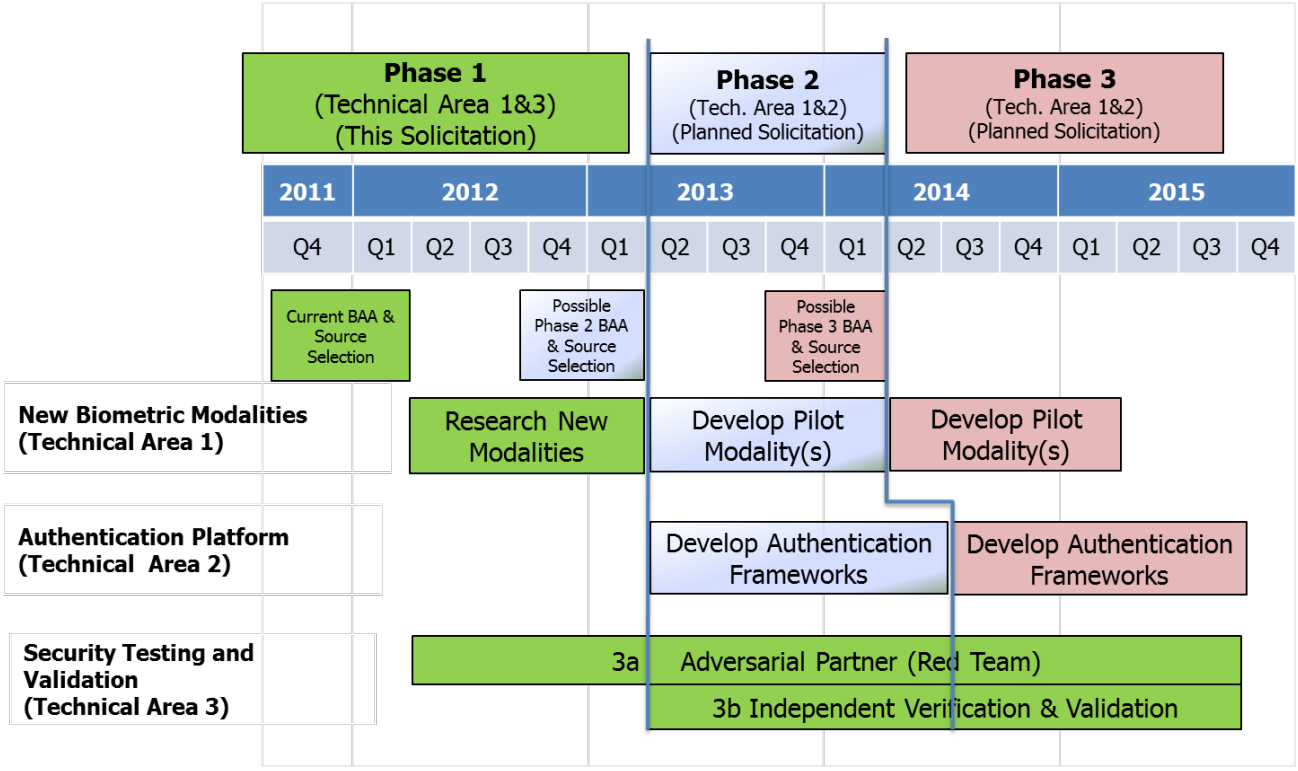
The Active Authentication program will consist of three phases, as illustrated in the following figure. In Phase 1 of the Active Authentication program (which is covered under this BAA), the program will seek out new ways of capturing the previously described cognitive fingerprint by

focusing on researching new potential software-based technologies. Phases 2 and 3 of the Active Authentication program will focus on developing operational pilots of new biometrics modalities and developing a platform to integrate any available biometrics (both software and hardware-based) into a single authentication platform. This integrated platform will initially focus on performing authentication for a single information technology device (a standard DoD desktop or laptop, parameters of this will be provided later in this solicitation). The platform will provide DoD with a trusted authentication method for the operating system that will validate the user by using all biometrics available on that platform.

In order to address each key aspect, the Active Authentication Program is comprised of the following three Technical Areas (TAs) which are detailed in the following section:

TA1: New Authentication Modalities *(solicited under this BAA and possible future BAAs)*
TA2: Authentication Platform *(planned to be solicited under a separate BAA)*
TA3: System Testing and Validation *(solicited under this BAA)*

The overall program is briefly described herein for completeness and to illustrate interdependencies between the various technical areas. **This BAA solicits proposals solely for TA1 (Phase 1) and TA3 of the Active Authentication Program.** DARPA anticipates publishing one or more new BAA(s) to address Phases 2 and 3 of the Active Authentication Program (which includes TA2 and potential new work under TA1). With the exception of TA3, performance in Phase 1 is not directly connected to performing in Phases 2 or 3.



Results from this initial phase of the Active Authentication program will be presented to DARPA at meetings which may include participants from other related Government programs. Research results for TA1 performers may feed into future DARPA research efforts regarding cyber security and authentication. The results of these new biometric modality research efforts

may be used to fashion or support a larger more integrated authentication program. DARPA expects the research results from TA1 tests to be published in the open literature. Analysis results for the TA3 performer(s) may be used during a later phase of the Active Authentication program if a technology moves on to a later phase.

This Active Authentication BAA solicits research efforts for TA1 that will not exceed a one-year base with no options; however, proposers in TA1 are encouraged to propose efforts for durations of less than a year if appropriate for their research. Proposers in TA3 should propose to support all three phases of the program with each year after the first delineated as options.

DARPA anticipates multiple awards in TA1 and one to two awards in TA3. Funding for each individual award under this BAA will be in an amount not expected to exceed $500,000 per year for each performer in the first year.

Under this BAA, it is acceptable for any proposer to submit against both TA1 and TA3; however, separate proposals must be submitted for each technical area. Proposers should note that they cannot receive awards in both technical areas (see Section III.D for further information). For TA1, if proposers submit multiple areas of research in one proposal each area must be proposed as separate tasks in the Statement of Work and Cost Volume to allow for partial award. Similarly, TA3 proposals may include both of the functional areas (see TA3 description) or only TA3a but, if proposing both, each area must be proposed as separate tasks in the Statement of Work and Cost Volume to allow for partial award.

In the first year, all proposers should plan on attending no more than five PI meetings per effort where travel may be required:

- One each quarter (to include a kickoff conference), with the locations split between the East and West Coasts of the United States.
- An additional PI meeting which will be held in a location near DARPA (probably in the June 2012 time frame in conjunction with a DARPA joint PI meeting).

In the following years, TA3 proposers should plan for one PI meeting each quarter and, potentially, an additional meeting held in conjunction with a DARPA joint PI meeting. See TA3 description below for further information on meetings and travel.

In addition to the PI meetings, performers should expect regular site visits with the Government team. These site visits may be held at the performer site or via video/voice conferencing.

C. Program Scope and Technical Area Descriptions

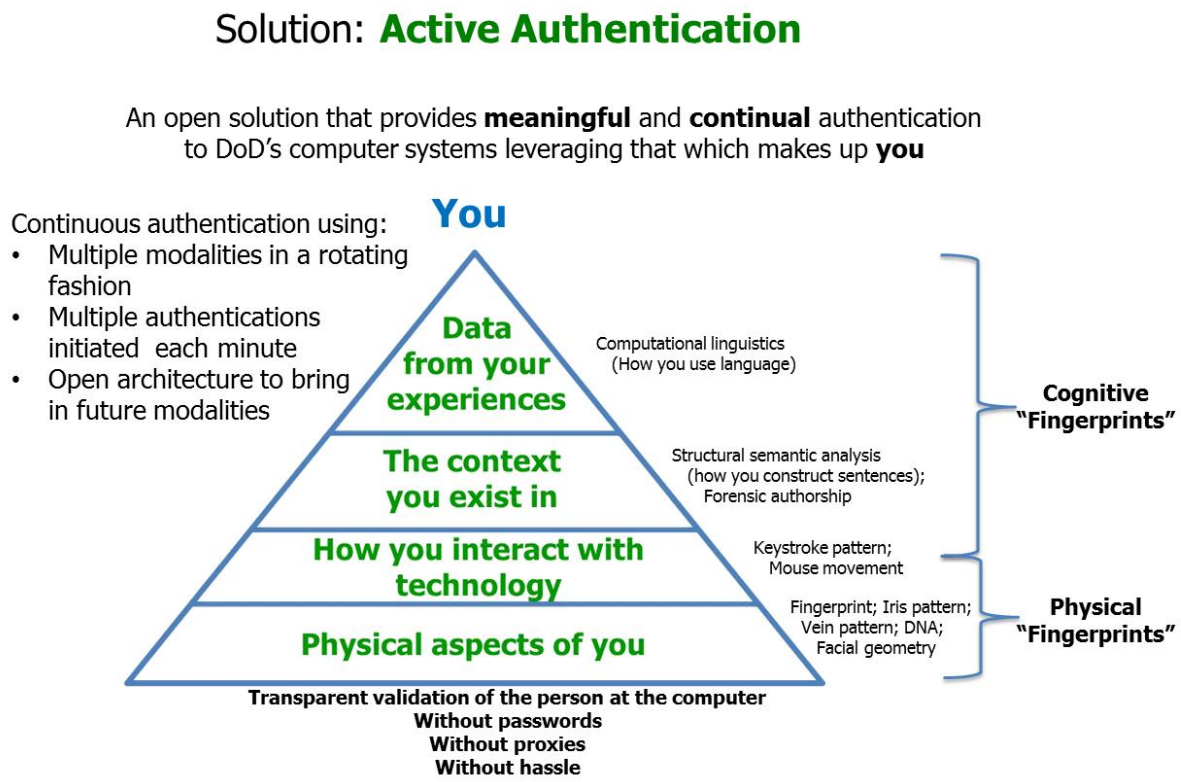
As described above, Phase 1 of the program will focus on performing research to validate one of the core hypotheses of the program--that there are new software biometrics that can be developed from other existing research (e.g., research that was intended to target individuals for purposes of marketing) to capture aspects of the cognitive fingerprint. TA1 is focused on new software-based biometrics, and TA3 is focused on providing an Adversarial Partner (or Red Team) that will provide System Security Testing in support of the TA1 efforts by directing the

research away from easily compromised solutions and to ensure the resulting technology does not introduce weaknesses into the authentication process.

1. Technical Area 1: New Authentication Modalities

Phase 1

The objective of this technical area is to provide empirical data in support of revolutionary technologies regarding software-based biometric modalities that can capture aspects of the cognitive fingerprint. Examples of potential types of modalities are shown in the graphic description of the Active Authentication program depicted in the diagram below.



The examples provided in the figure are only provided for illustrative purposes and are not intended as a list of potential research topics. The examples on the figure include potential biometrics that would not be supported through this BAA due to a requirement for the deployment of additional hardware based sensors.

This diagram illustrates the focus of this program on "cognitive fingerprints" rather than physical biometrics. Biometric modalities are indicated ranging from known and commonly understood modalities (represented in the bottom of the triangle) to currently unproven potential new modalities that focus more on the cognitive fingerprint, rather than the physical aspects of the individual. Proposers are not limited by the conceptual areas shown in the diagram and are encouraged to push the limits of the possible when proposing research areas.

The focus of this program is on the cognitive aspects of the individual. DARPA intends to increase the range of what is commonly thought of as biometric modalities to include new modalities that can be captured through software applications, not push research into specific

areas. Ideas that do not fit within the categories defined above but still capture the unique aspects of cognitive fingerprint are welcome and encouraged in this solicitation.

As stated above, TA1 research performed under this BAA will be short term (1 year or less) and focused on validating the utility of the new biometric modalities, focusing on areas beyond what is considered typical physical biometric solutions that are hardware-based. The research performed will provide empirical data based on documented and demonstrated tests performed with real humans. This test data can then later be used to validate the viability of a software-based biometric modality as candidates for integration into operational pilots in later solicitations in the Active Authentication program.

TA1 proposals must include the following:

- Answers to the following questions:
  - What research are you planning to perform?
  - How do you believe your technology captures enough of the unique qualities of a human to be usable as a biometric for authentication?
  - Is what you are proposing already done today and, if so, what are the limitations?
  - Who will care and what will the impact be if you are successful?
  - How much will it cost and how long will it take?
- A description of what is being captured and measured to validate the identity of the individual at the console.
- A description of the expected viability, reliability, and accuracy of the proposed technology.
- A specific description of the expected false alarm rates.
- A specific description of the proposer's ability to address operational and user privacy issues related to use of the technology.
- Testing information to include:
  - method of testing to be performed,
  - method of acquiring test subjects,
  - planned number of test subjects, and
  - a description of how this sample size and testing method is statistically significant.

It is critical that research performed under this solicitation is validated with live tests to demonstrate the effectiveness of the technology using test groups large enough to be statistically significant. This solicitation is not specifying the method for evaluation of the test results or specific trust measures other than the requirement that testing is performed on human subjects, but proposers need to be aware that this is a critical aspect of the proposal evaluation.

Proposals for TA1 must also specify research goals and milestones so progress can be measured and tracked.

Proposers can assume for this solicitation that a standard DoD office environment desktop would specifically include:

Keyboard, mouse, Windows 7 operating systems, network interface card, a connection to a printer (which may not be local), and the standard DoD software product suite (to include: McAfee's HBSS, Virus protection from Symantec or McAfee, Microsoft Office applications, ActiveClient CAC, software encryption for data at rest).

DARPA anticipates that the technologies developed for TA1 should be able to meet the following targets at the end of each phase as shown in the following table. *As a reminder, this solicitation only addresses Phase 1 for TA1. The targets shown for Phases 2 and 3 are only for informational purposes and to illustrate the direction of the program.*

New Authentication Modalities		Phase 1	Phase 2	Phase 3
	Maximum False Rejections after five (5) scans	1/week	1/month	1/month
	True Positive Rate for each scan	80%	80%	85%
	Usability of modality within the population of DoD personnel	90%	90%	95%

These targets describe the maximum number of false rejections that would be accepted over a specific time period. Note that these false rejections are after five attempts to validate. This means the system would (at the end of Phase 1), potentially have to falsely reject the user more than five times in a row during continuous usage over a 40 hour period to fail to meet this target. The technologies developed under this solicitation should be able to work invisibly to the user unless five false positives are reached.

In the later phases of the program, DARPA plans to leverage the test results from these research efforts to support the overall Active Authentication effort. This integration is planned to be addressed in future solicitations.

The purpose of this technical area in this phase of the Active Authentication program is not to build systems or transition technology but to perform verifiable demonstrations. These demonstrations will eventually help the DoD determine which of these systems can be developed into operational solutions in later planned phases of the Active Authentication program.

Performers in this technical area are expected to publish their research and experimental results via white papers, conference presentations, and other public methods focusing on the empirical data and quantitative research. Research results from TA1 performers are encouraged and expected to be communicated in appropriate workshops, conferences, and refereed journals.

While not required to do so, proposers are encouraged to demonstrate their findings via mathematical models, technology demonstrations utilizing live human subjects, and other means of presenting their findings to the Government in a quantitative manner.

While this phase extends 12 months, it is not expected that any TA1 performers will require the entire duration for their activities. Any TA1 performers in Phases 2 and 3 of the program will not necessarily be the same as those performing in Phase 1. As stated above, DARPA

anticipates publishing one or more separate solicitations for TA1 research in Phases 2 and 3.

2. Technical Area 2: Authentication Platform

Phase 2 and Phase 3

This BAA is not soliciting proposals for Technical Area 2. This description is provided for informational purposes only. Proposals submitted under this solicitation for this technical will not be reviewed.

This technical area focuses on the development of a platform that will integrate biometrics modalities and manage the authentication process within an open architecture to allow introduction of new solutions.

3. Technical Area 3: System Testing and Validation

This technical area solicits proposals to provide support to the other aspects of the Active Authentication program and consists of activities in two functional areas:

> TA3a: System security testing where the performer will act as an Adversarial Partner (or Red Team) to determine the vulnerabilities introduced through applications developed under the Active Authentication program during the software development process.
>
> TA3b: Independent Validation and Verification (IV&V) of the functionality of applications developed. The IV&V performer will validate the functionality of all developed products (i.e., the technology performs as intended) as each deliverable is available by performing formal testing of the technologies developed with the intent to determine whether or not they satisfy the identified program requirements in the manner the TA1 or TA2 performer described.

The TA3 performer(s) will be brought in to provide guidance to the TA1 and TA2 performers consisting of directing research away from clear security risks and ensure the end technology performs as intended. Proposals for TA3 must specify the intended method of evaluation of the TA1 performers' theories and technologies.

The performer(s) in this technical area will act as an independent unit without any bias to provide the most effective direction to the performers in TA1 and TA2. To ensure independence and prevent conflict of interest, proposers selected to perform any task within Technical Area 3 will not be selected as performers on any other technical area within the Active Authentication program. See Section III.D for further information.

DARPA expects the TA3 performer(s) to be available for a monthly technical interchange meeting with each of the other performers. While DARPA encourages the use of voice/video conferencing, travel costs should be included in proposals in the event the TA3 performer(s) must travel to a TA1 or TA2 performer's location. For purposes of estimation, costs for Phase

1 should assume that there will be 8 TA1 performers; costs for Phases 2 and 3 should assume that there will be three TA1 performers and one TA2 performer.

Due to the fact that Phases 2 and 3 are planned phases, all facets of the proposal past the initial year should be proposed as fully priced options. Provide total costs broken down by major cost items (direct labor, including travel, labor categories; subcontracts; materials; other direct costs, overhead charges, etc.) and further broken down by task and phase. Include any additional assumptions associated with the Phases 2 and 3 option costs.

a. TA3a - System Security Testing (Adversarial Partner or Red Team)

The Adversarial Partner will work with the researchers developing technologies under TA1 and TA2 of the Active Authentication program to provide them insight from the offensive and defensive view as it relates to the development of their solution. DARPA is bringing this aspect into the development of the technologies under the Active Authentication program to ensure that the solutions developed are as secure as possible.

The Adversarial Partner will be performing technical analyses (as it relates to security risks) of biometric modalities (from the initial theoretical phase to the implementation phase) to provide objective feedback (as it relates to security risks) on the method and technical implementations planned or executed by the performers and DARPA for the purpose of strengthening the process of the new biometric modalities.

System Security Testing - Phase 1
During Phase 1 of the Active Authentication program, the focus of the performers in TA1 will be on experimenting on new authentication modalities, not on developing an operational pilot. Due to this focus, the activities under TA3 will be limited.

During Phase 1 there will be no TA2 performers.

System Security Testing - Phases 2 and 3
During the later phases of the program (2 and 3), the focus of the performers in TA1 and TA2 will be on developing operational pilots of their technologies. Given this focus, the TA3 activities will be much more extensive than under Phase 1. DARPA expects the performers in this phase to be engaged in the development process with the performers under TA1 and TA2 to ensure the product being developed is as secure as possible. Again, the TA1 performers in Phases 2 and 3 of the program will not necessarily be the same as those performing in Phase 1. As stated above, DARPA anticipates publishing one or more separate solicitations for TA1 research in Phases 2 and 3.

TA3a proposals must include the following:

- A description of how the proposer intends to evaluate the security of the research concepts developed in Phase 1.
- A description of how the proposer intends to evaluate the security of the operational pilot technologies developed in Phases 2 and 3.

- A description of how the proposer would evaluate the ability of an adversary to breach a new biometric being developed.
- A description of the expected attack vectors that would be available for adversaries in software based biometric technologies and concepts for how developers could protect against those attack vectors.

b. TA3b - Independent Validation and Verification (IV&V)

As defined in the Federal standards defined in IEEE Standard 1012-1098, DARPA requires the IV&V team to validate the technologies developed under TA 1 and TA2 to ensure the end products perform as originally intended.

Independent Validation and Verification (IV&V) - Phase 1
During Phase 1 of the Active Authentication program there will be no TA3b activities.

Independent Validation and Verification (IV&V) - Phases 2 and 3
During the later phases of the program (2 and 3), the focus of the performers in TA1 and TA2 will be on developing an operational pilot for selected technologies. It is these technologies that the performers under TA3b will be evaluating. As noted above, the evaluation will be performed using standard DoD practices with a heavy focus on the impact to the operational environment and privacy aspects of information relating to the users.

TA3b proposals must include the following:

- A description of how the proposer intends to evaluate the design and function of the technologies developed.
- A description of how the proposer intends to evaluate privacy protections in the technologies developed.
- A description of how the proposer would evaluate the risk introduced to a DoD desktop or laptop if an evaluated technology were included.
- A description of the expected attack vectors that would be available for adversaries in software based biometric technologies and concepts for how developers could protect against those attack vectors.

D. Deliverables

At a minimum, all performers will be required to provide the following deliverables:

- Technical papers, reports, and program developed source code. In addition to providing to the Government, it is expected that TA1 performers will be publishing and sharing their results broadly within the scientific community.

- Monthly Progress Reports – Progress report should address technical progress and financials. Describe technical progress made, any issues requiring the attention of the Government team, and any papers submitted for publication. Reports should also provide financial status by showing total award, total funded, planned expenditures by

month and actual expenditures by month. The Government will provide a simplified template.

- Final Report – A concise summarization of the effort conducted, and any papers submitted for publication since the last quarterly progress report.

- Reporting as described in Section VI.B and VI.C.

E. Intellectual Property

The Government desires that all technical data and computer software that is developed under this program should be provided to the Government with at least Government Purpose Rights. Results should be broadly shared with the scientific community, including public release of source code developed with program funding.

See Section VI.B.2 for further details.

II. AWARD INFORMATION

Multiple awards are anticipated in each technical area. The level of funding for individual awards made under this BAA, while not expected to exceed $500,000 in the first year for a single performer, has not been predetermined and will depend on the quality of the proposals received and the availability of funds. It may be possible that a proposer that submits multiple research areas under Technical Area 1 may be selected; in this case, it would be possible to exceed the anticipated award per performer.

Awards will be made to proposers whose proposals are determined to be the most advantageous and provide the best value to the Government, all factors considered, including the potential contributions of the proposed work, overall funding strategy, and availability of funding for the effort. See Section V.B. for further information.

Proposals selected for award negotiation may result in a procurement contract, cooperative agreement, or other transaction depending upon the nature of the work proposed, the required degree of interaction between parties, and other factors. In all cases, the contracting officer shall have sole discretion to select award instrument type and to negotiate all instrument provisions with selectees.

As of the date of publication of this BAA, DARPA expects that program goals for this BAA may be met by proposers intending to perform 'fundamental research,' i.e., basic or applied research performed on campus in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization the results of which ordinarily are restricted for proprietary or national security reasons. Notwithstanding this statement of expectation, DARPA is not prohibited from considering and selecting research proposals that, while perhaps not qualifying as 'fundamental research' under the foregoing definition, still meet the BAA criteria for submissions. If proposals are selected for award that offer other than a fundamental research solution, then DARPA will either work with the proposer to modify the proposed statement of work to bring the research back into line with fundamental research or else the proposer will agree to restrictions in order to receive an award. See Section VI.B.5 for further information on fundamental, non-fundamental and restricted research.

The Government reserves the right to:

- Select for negotiation all, some, one, or none of the proposals received in response to this solicitation.
- Make awards without discussions with proposers.
- Conduct discussions if it is later determined to be necessary.
- Segregate portions of resulting awards into pre-priced options.
- Accept proposals in their entirety or to select only portions of proposals for award.
- Fund proposals in phases with options for continued work at the end of one or more phases.

- Request additional documentation once the award instrument has been determined; such information may include but is not limited to representations and certifications.
- Remove proposers from award consideration should the parties fail to reach agreement on award terms within a reasonable time or the proposer fails to provide requested additional information in a timely manner.

III. ELIGIBILITY

A. Applicants

All responsible sources capable of satisfying Government requirements may submit a proposal to this BAA.

1. **Historically Black Colleges and Universities, Small Businesses, Small Disadvantaged Businesses and Minority Institutions:** Historically black colleges and universities (HBCUs), small businesses, small disadvantaged businesses and minority institutions (MIs) are encouraged to submit proposals and team with others to submit proposals; however, no portion of this announcement will be set aside for these organizations due to the impracticality of reserving discrete or severable areas of this research for exclusive competition among these entities.

2. **Federally Funded Research and Development Centers (FFRDCs) and Government Entities:** FFRDCs and Government entities (e.g., Government/national laboratories and military educational institutions) are subject to applicable direct competition limitations and cannot propose to this BAA in any capacity unless the following conditions are met.

   - FFRDCs must clearly demonstrate that the proposed work is not otherwise available from the private sector and must provide a letter on letterhead from their sponsoring organization citing the specific authority establishing eligibility to propose to Government solicitations and compete with industry and compliance with the associated FFRDC sponsor agreement and terms and conditions. This information is required for FFRDCs proposing as either prime contractors or subcontractors.

   - Government entities must clearly demonstrate that the proposed work is not otherwise available from the private sector and provide written documentation citing the specific statutory authority (and contractual authority, if relevant) establishing the ability to propose to Government solicitations.

   At the present time, DARPA does not consider 15 U.S.C. 3710a to be sufficient legal authority to show eligibility. While 10 U.S.C. 2539b may be the appropriate statutory starting point for some entities, specific supporting regulatory guidance, together with evidence of agency approval, will still be required to fully establish eligibility.

   DARPA will consider eligibility submissions on a case-by-case basis; however, the burden to prove eligibility for all team members rests solely with the proposer.

3. **Foreign Participation:** Non-U.S. organizations and/or individuals may participate to the extent that such participants comply with any necessary nondisclosure

agreements, security regulations, export control laws, and other governing statutes applicable under the circumstances.

B. Procurement Integrity and Organizational Conflicts of Interest

Current Federal employees are prohibited from participating in particular matters involving conflicting financial, employment, and representational interests (18 USC 203, 205, and 208). Prior to the start of proposal evaluation, the Government will assess potential conflicts of interest and will promptly notify the proposer if any appear to exist. The Government assessment does not affect, offset, or mitigate the proposer's responsibility to give full notice and planned mitigation for all potential organizational conflicts, as discussed below.

Without the prior approval or a waiver from the DARPA Director, a contractor cannot simultaneously be a scientific, engineering, and technical assistance (SETA) contractor and a performer. (See Federal Acquisition Regulation (FAR) 9.503 at https://www.acquisition.gov/FAR/.) As part of the proposal submission, proposers, proposed subcontractors and consultants must affirm whether they (individuals and organizations) are providing SETA or similar support to any DARPA technical office(s) through an active contract or subcontract. Affirmations must state which office(s) the proposer and/or proposed subcontractor/consultant supports and must provide prime contract numbers. All facts relevant to the existence or potential existence of organizational conflicts of interest (FAR 9.5) must be disclosed. The disclosure shall include a description of the action the proposer has taken or proposes to take to avoid, neutralize, or mitigate such conflict. Proposals that fail to fully disclose potential conflicts of interest and/or do not have plans to mitigate this conflict may be rejected without technical evaluation and withdrawn from further consideration for award. If, in the sole opinion of the Government after full consideration of the circumstances, any conflict situation cannot be effectively mitigated, a proposal may be rejected without technical evaluation and withdrawn from further consideration for award under this BAA.

If a prospective proposer believes a conflict of interest exists or may exist (whether organizational or otherwise) or has a question as to what constitutes a conflict, a summary of the potential conflict should be sent to ActiveAuthentication@darpa.mil before preparing a proposal and mitigation plan.

C. Cost Sharing/Matching

Cost sharing is not required for this particular program unless a statutory condition applies such as the conditions of 10 U.S.C. 2371 as they apply to Other Transactions (see Section IV.B.2.e); however, cost sharing will be carefully considered if proposed.

D. Other Eligibility Requirements

1. **Submission of Proposals to Multiple Technical Areas:** While proposers may submit proposals for both Technical Area 1 and Technical Area 3, proposers selected for any portion of Technical Area 3 cannot be selected for any portion of Technical Area 1, whether as a prime, subcontractor, or in any other capacity from an organizational to individual level. This is to avoid organizational conflict of interest situations between the technical areas and to ensure objective test and evaluation results. The decision as to which proposal to consider for award is at the discretion of the Government.

IV. APPLICATION

A. Announcement

This announcement contains all information required to respond to this solicitation and constitutes the total BAA. No additional forms, kits, or other materials are needed. No request for proposal (RFP) or additional solicitation regarding this opportunity will be issued, nor is additional information available except as provided at the FedBizOpps website (http://www.fbo.gov) or referenced in this document.

B. Proposals

Proposals consist of Volume 1: Technical and Management Proposal (including mandatory Appendix A and optional Appendix B) and Volume 2: Cost Proposal.

All pages shall be formatted for printing on 8-1/2 by 11-inch paper with a font size not smaller than 12 point. Font sizes of 8 or 10 point may be used for figures, tables, and charts.

Document files must be in Portable Document Format (.pdf, ISO 32000-1), OpenDocument (.odx, ISO/IEC 26300:2006), .doc, .docx, .xls, .or .xlsx formats.

Submissions must be written in English.

Proposals not meeting the format prescribed herein may not be reviewed.

1. **Volume 1: Technical and Management Proposal**
   Volume 1 must be concise and detailed with a maximum page count of **16 pages**. This does not include figures, tables, charts, cover sheet, table of contents or appendices. A submission letter is optional and is not included in the page count. Appendix A does not count against the page limit and it is mandatory. Appendix B does not count against the page limit and it is optional.

   If a proposer submits **more than one research concept** under Technical Area 1, the proposal page limit will be **increased by 4 pages for each** additional research concept they propose for Technical Area 1.

   Additional information not explicitly called for must not be submitted with the proposal, but may be included as links in the bibliography in Appendix B. Such materials will be considered for the reviewers' convenience only and not evaluated as part of the proposal.

   Volume 1 must include the following components:

   a. Cover Sheet
   - BAA number (DARPA-BAA-12-06)
   - VOLUME 1: Technical and Management Proposal
   - Technical area

- Lead organization (prime contractor) name
- Type of business, selected from among the following categories: “LARGE BUSINESS”, “SMALL DISADVANTAGED BUSINESS,” “OTHER SMALL BUSINESS,” “HBCU,” “MI,” “OTHER EDUCATIONAL,” OR “OTHER NONPROFIT”
- Contractor’s reference number (if any)
- Other team members (if applicable) and type of business for each
- Proposal title
- Technical point of contact including name, mailing address, telephone, email, and fax
- Administrative point of contact including name, mailing address, telephone, email, and fax
- Award instrument requested: cost-plus-fixed-fee (CPFF), cost-contract—no fee, cost sharing contract – no fee, or other type of procurement contract (specify) or cooperative agreement or other transaction agreement. Information on award instruments can be found at http://www.darpa.mil/Opportunities/Contract_Management/Contract_Management.aspx.
- Place(s) and period(s) of performance
- Subcontractor information
- Proposal validity period (minimum 120 days)
- DUNS number (http://www.dnb.com/US/duns_update)
- Taxpayer identification number (http://www.irs.gov/businesses/small/international/article/0,,id=96696,00.html)
- CAGE code (http://www.dlis.dla.mil/CAGESearch/cage_faq.asp)

b. Table of Contents

c. Executive Summary

For Technical Area 1, provide a synopsis of the proposed project, including answers to the following questions:

- What research are you planning to perform?
- How do you believe your technology captures enough of the unique qualities of a human to be usable as a biometric for authentication?
- Is what you are proposing already done today and, if so, what are the limitations?
- Who will care and what will the impact be if you are successful?
- How much will it cost and how long will it take?

For Technical Area 3, provide a synopsis of the proposers’ capabilities, including answers to the following questions:

- What capabilities are you proposing to bring to the program?
- What novel methods do you intend to utilize in the evaluation of the TA1 and TA2 performers?
- How much will it cost and how long will it take?

The summary should include a description of the expected key technical challenges, a concise review of the technologies or methods proposed to overcome these challenges and achieve the effort's goal. Discuss mitigation of technical risk.

d. Technical Description

For Technical Area 1, outline and address technical challenges inherent in the approach and possible solutions for overcoming potential problems. Provide appropriate measurable milestones (quantitative if possible) at intermediate stages of the effort to demonstrate progress, and a plan for achieving the milestones. Demonstrate a deep understanding of the technical challenges and present a credible (even if risky) plan to achieve the effort's goal. Discuss mitigation of technical risk.

- What exactly are you trying to do? Articulate your objectives technically and succinctly.
- Quantitatively discuss what is new in the approach and why will it succeed?
- Describe how this new method will capture enough information from a human at a computer to differentiate them enough for authentication. Include your plans for:
    1. How you intend to prove this (your testing plan).
    2. Potential methods of fooling or spoofing your technology, and how you believe they could be addressed.
    3. Collection of empirical data.
    4. Demonstrating the statistical significance of your testing results.
    5. Evaluation of results.

Discuss mitigation of security risk.

- Describe how the proposed technology could be attacked itself.
- How will this technology incentivize the adversary?
- If the technology were deployed, how might the adversary take advantage of this technology to further their own goals?
- What are potential unintended consequences of the proposed technology?
- If you were to have to defeat your own technology, how would you go about it? (Note: it is perfectly acceptable to identify deficiencies within your proposed technology. It is not acceptable to believe that there are none.)
- Who would not be able to make use of this technology? No known biometrics work on 100% of the population of humanity, define what segment you feel would not be able to use this solution.

For *Technical Area 3,* outline and address technical challenges inherent in the providing the planned support to the TA1 and TA2 performers and possible solutions for overcoming potential problems. Provide appropriate measurable milestones (quantitative if possible) at intermediate stages of the effort to demonstrate progress, and a plan for achieving the milestones. Note: It is reasonable to expect that these milestones would be based on stages of development for the TA1 and TA2 performers. Demonstrate a deep

understanding of the technical challenges and present a credible plan to achieve the program's goal by the inclusion of this technical area.

Discuss mitigation of any potential technical risks.

- Quantitatively discuss how you would intend to provide your risk assessment of the TA1 and TA2 performers' technologies
- Describe how this new method will capture enough information from to provide enough information to the government to evaluate the effectiveness of the biometric technologies.
- Describe methods you expect that the proposed technologies could be attacked.
- Understanding the program goals, how will successful technology in this program incentivize the adversary?
- If the technology developed here were deployed, how might the adversary take advantage of them to further their own goals?
- What are potential unintended consequences of the proposed technologies?

e. Management Plan

Provide a summary of expertise of the team, including any subcontractors, and key personnel who will be doing the work (see Appendix B for information regarding résumés). Identify a principal investigator for the project. Provide a clear description of the team's organization including an organization chart that includes, as applicable, the relationship of team members; unique capabilities of team members; task responsibilities of team members; teaming strategy among the team members; and key personnel with the amount of effort to be expended by each person during the effort. Include details for coordination including explicit guidelines for interaction among collaborators/subcontractors of the proposed effort. Include risk management approaches. Describe any formal teaming agreements that are required to execute this effort.

f. Performer Capabilities

Describe organizational experience in this area, existing intellectual property, specialized facilities, and any Government-furnished materials or data. Provide a discussion of any work in closely related research areas and previous accomplishments.

g. Capability/Technology Information

Proposers may not propose work they have already completed or for which they have already received funding, but they may propose to expand research that they have performed before to provide the government with greater assurance of the validity of the results or they may propose to perform large scale testing for an existing technology to meet the government's requirement for empirical data.

h. Statement of Work (SOW)

The SOW should provide a detailed task breakdown, citing specific tasks and their connection to the interim milestones and program metrics. Each year of the program should be separately defined.

For each task/subtask, provide:

- A general description of the objective (for each defined task/activity).
- A detailed description of the approach to be taken to accomplish each defined task/activity.
- Identification of the primary organization responsible for task execution (prime, sub, team member, by name, etc.).
- The exit criteria for each task/activity - a product, event or milestone that defines its completion.
- A definition of all deliverables (reporting, data, reports, software, etc.) to be provided to the Government in support of the proposed research tasks/activities.
- Clearly identify any tasks/subtasks (prime or subcontracted) that will be accomplished on-campus at a university.

The SOW must not include proprietary information.

i. Schedule and Milestones

Provide a detailed schedule showing tasks (task name, duration, work breakdown structure element as applicable, performing organization), milestones, and the interrelationships among tasks. The task structure must be consistent with that in the SOW. Measurable milestones should be clearly articulated and defined in time relative to the start of effort.

j. Cost Summary

Provide the cost summary as described in Section IV.B.2.b.

k. Appendix A

This section is mandatory and must include all the following components.

- **Team Member Identification:** Provide a list of all team members (prime and subcontractors). Identify specifically whether any are a non-US organization or individual, FFRDC and/or Government entity as applicable.

- **Government or FFRDC Team Member:** Provide documentation (per Section III.A.2) citing the specific authority that establishes the applicable team member as eligible to propose to Government solicitations to include: 1) statutory authority; 2) contractual authority; 3) supporting regulatory guidance; and 4) evidence of agency approval for applicable team member participation. In addition, provide a statement that demonstrates the work being provided by the Government or

Government-funded entity team member is not otherwise available from the private sector.

State "NONE" if none of the team member organizations (prime or subcontractor) belong to a Government entity or FFRDC.

- **Organizational Conflict of Interest Affirmations and Disclosure:** State "NONE" if neither the proposer nor any proposed subcontractor is currently providing SETA support as described in Section III.B.

  Otherwise, provide the following information for the proposer and each proposed subcontractor, as applicable:

Prime Contract Number	DARPA Office supported	A description of the action the proposer has taken or proposes to take to avoid, neutralize, or mitigate the conflict

- **Intellectual Property:** Provide (per Section VI.B.2) a list of all technical data or computer software that will be furnished to the Government with other than unlimited rights. Include all proprietary claims to results, prototypes, deliverables or systems supporting and/or necessary for the use of the research, results, prototypes and/or deliverables. Provide documentation proving ownership or possession of appropriate licensing rights to all patented inventions (or inventions for which a patent application has been filed) to be used for the proposed project. The Government will assume unlimited rights to all intellectual property not explicitly identified as restricted in the proposal.

  State "NONE" if no restrictions are intended and patents are not applicable.

- **Human Use:** Provide evidence of or a plan for review by an institutional review board (IRB) for all proposed research that will involve human subjects in the first year or phase of the project. For further information on this subject, see Section VI.B.3.

  State "NONE" if human use is not a factor in a proposal.

- **Animal Use:** For submissions containing animal use, proposals must briefly describe plans for Institutional Animal Care and Use Committee (IACUC) review and approval. For further information on this subject, see Section VI.B.4.

  State "NONE" If animal use is not a factor in a proposal.

- **Subcontractor Plan:** Prepare a subcontractor plan in accordance with FAR 19.702(a) (1) and (2). Pursuant to Section 8(d) of the Small Business Act (15 U.S.C. 637(d)), it is Government policy to enable small business and small disadvantaged business concerns to be considered fairly as subcontractors to contractors performing work or rendering services as prime contractors or subcontractors under Government contracts, and to ensure that prime contractors and subcontractors carry out this policy. The plan format is outlined in FAR 19.704.

l. Appendix B

Include, if desired, a bibliography with links to relevant papers, reports, videos, or résumés. Do not include technical papers in the submission. This section is optional, and the linked materials will not be evaluated as part of the review.

2. Volume 2: Cost Proposal

This section is mandatory and must include all the listed components. No page limit is specified for this volume. For purposes of building your cost proposal, assume a start date of June 1, 2012.

a. Cover Sheet

Include the same information as the cover sheet for Volume 1 with the label "VOLUME 2: Cost Proposal."

b. Cost Summary

Provide a single-page summary with cost totals for labor, materials, other direct charges (ODCs), indirect costs (overhead, fringe, general and administrative (G&A), and the proposed fee (if any) for the effort by phase and year. Include costs for each task in each year of the effort by prime and major subcontractors, total cost and company cost share, if applicable. Include any requests for Government-furnished equipment or information with cost estimates (if applicable) and delivery dates.

c. Detailed Cost Information

Provide detailed cost information for direct labor (including labor categories), materials, ODCs and indirect costs by month for each task of the project. Information provided for subcontractors must be at the same level of detail as that provided for prime contractors. Both labor rates and hours should be detailed. A separate breakdown should be done for each proposed option.

Summarize task-level cost information to give total expenditures on labor, materials, and ODCs by month for prime and subcontractors. Identify cost sharing (if any). Itemize purchases of information technology (as defined in FAR 2.101). Provide totals for all cost categories.

The cost proposal should include a spreadsheet file (.xls, .or equivalent format) that provides formula traceability among all components of the cost proposal.

Costs must be traceable between prime and subcontractor as well as between the cost proposal and the statement of work. The spreadsheet file should be included as a separate component of the zipped submission package.

For proposed information technology and equipment purchases that are equal to or greater than $50,000 for a single item, a letter should be included justifying the purchase.

Supporting cost and pricing information shall include a description of the method used to estimate costs and supporting documentation. "Certified cost or pricing data" as defined in FAR Subpart 15.4 shall be required if the proposer is seeking a procurement contract award of $700,000 or greater unless the proposer requests an exception from the requirement to submit this information. Certified cost or pricing data is not required if the proposer proposes an award instrument other than a procurement contract (e.g., a cooperative agreement or other transaction).

Pre-award costs are not reimbursable for awards under this BAA.

See Section III.C for information on cost sharing/matching.

A cost proposal checklist is provided in Section VIII.D.

d. Subcontractors

The proposer is responsible for the compilation and submission of all subcontractor cost proposals. Proposal submissions will not be considered complete until the Government has received all subcontractor cost proposals.

Proprietary subcontractor cost proposals may be included as part of Volume 2 or submitted separately to ActiveAuthentication@darpa.mil (not uploaded to the submission site). Email messages should include "Subcontractor Cost Proposal" in the subject line and identify the principal investigator and prime proposer organization in the message.

Subcontractor cost proposals should include interdivisional work transfer agreements or similar arrangements.

e. Other Transactions

If the proposer requests award of an 845 Other Transaction Authority for Prototypes (845 OTA) Agreement as a nontraditional defense contractor, as defined in the OSD guide "Other Transactions (OT) Guide For Prototype Projects" dated January 2001 (as amended) (http://www.acq.osd.mil/dpap/Docs/otguide.doc), information must be included in the cost proposal to support the claim. If the proposer requests award of an 845 OTA agreement without the required one-third cost share, information must be included in the cost proposal supporting the claim that there is at least one

nontraditional Defense contractor participating to a significant extent in the proposed prototype project.

Proposers requesting an 845 OTA agreement must include a detailed list of milestones including: milestone description, completion criteria, due date, and payment/funding schedule (to include, if cost share is proposed, contractor and Government share amounts). Milestones should relate directly to accomplishment of technical metrics as defined in the BAA and/or the proposal. Agreement type, fixed price or expenditure based, will be subject to negotiation with DARPA; however, the use of fixed price milestones with a payment/funding schedule is preferred. Proprietary information must not be included as part of the milestones.

For information on 845 OTAs, refer to http://www.darpa.mil/Opportunities/Contract_Management/Other_Transactions_and_Technology_Investment_Agreements.aspx.

C. Proprietary and Classified Information

1. **Proprietary Information:** DARPA policy is to treat all proposals as source selection information (see FAR 2.101 and 3.104) and to disclose the contents only for the purpose of evaluation.

   Proposers are responsible for identifying proprietary information to DARPA. Proposals containing proprietary information must have the cover page and each page containing such information clearly marked. Proprietary information must not be included in the schedule, milestones, or SOW.

   During the evaluation process, proposals may be handled by one or more support contractors for administrative purposes and/or to assist with technical evaluation. All DARPA support contractors performing this role are expressly prohibited from performing DARPA-sponsored technical research and are bound by appropriate nondisclosure agreements.

2. **Classified Information:** Proposers submitting classified proposals or requiring access to classified information during the lifecycle of the effort shall ensure all industrial, personnel, and information system processing security requirements (e.g., facility clearance (FCL), personnel security clearance (PCL), certification and accreditation (C&A)) are in place and at the appropriate level, and any foreign ownership control and influence (FOCI) issues are mitigated prior to submission or access. Proposers must have existing, approved capabilities (personnel and facilities) prior to award to perform research and development at the classification level proposed. Additional information on these subjects is at http://www.dss.mil.

   If a proposal is submitted as “Classified National Security Information” as defined by Executive Order 13526 the information must be marked and protected as though

classified at the appropriate classification level and submitted to DARPA for a final classification determination.

Classified submissions must indicate the classification level of not only the proposal materials, but also the anticipated classification level of the award document.

After an incoming proposal is reviewed and a determination has been made that the award instrument may result in access to classified information, DD Form 254, "DoD Contract Security Classification Specification," will be issued and attached as part of the award. A DD Form 254 will not be provided at the time of submission. The DD Form 254 template is available at http://www.dtic.mil/dtic/pdf/formsNguides/dd0254.pdf.

Proposers choosing to submit a classified proposal from other classified sources must first receive permission from the respective original classification authority (OCA) to use this information in replying to this BAA. Applicable classification guide(s) must be submitted to ensure the proposal is protected at the appropriate classification level.

Classified submissions shall be appropriately and conspicuously marked with the proposed classification level and declassification date. Submissions requiring DARPA to make a final classification determination shall be marked as follows:

CLASSIFICATION DETERMINATION PENDING. Protect as though classified (insert the recommended classification level: Confidential, Secret, or Top Secret)

Classified proposals will not be returned. The original of each classified proposal received will be retained at DARPA, and all other copies destroyed. A destruction certificate will be provided if a formal request is received by DARPA within 5 days of notification of non-selection.

D. Submission Instructions

1. **Due Dates:** The proposal package--full proposal, encryption password, and, as applicable, proprietary subcontractor cost proposals, classified appendices to unclassified proposals --must be submitted per the instructions outlined in this document and received by DARPA by 1200 (noon) ET on the proposal due date of March 6, 2012. Submissions received after this time will not be reviewed. Proposers are warned that submission deadlines as outlined herein are strictly enforced.

   DARPA will acknowledge receipt of complete submissions via email and assign control numbers that should be used in all further correspondence regarding proposals. Note: These acknowledgements will not be sent until after the proposal closing date.

Failure to comply with the submission procedures may result in the submission not being evaluated.

2. **Unclassified Submission:** Proposers must submit their entire proposal via the same method; applications cannot be submitted in part via one method and in part via another method nor should duplicate submissions be sent via multiple methods. Email submissions will not be accepted.

   a. **Procurement Contract or Other Transaction Agreement Proposers:** DARPA will employ an electronic upload submission system for UNCLASSIFIED proposal responses seeking a procurement contract or other transaction under this BAA. Responding to this announcement requires completion of an online cover sheet for each proposal prior to submission. To do so, the proposer must go to https://www.csc-ballston.com/baa/index.asp?BAAid=12-06 and follow the instructions there. Upon completion of the online cover sheet, a Confirmation Sheet will appear along with instructions on uploading the proposal.

      If a proposer intends to submit more than one proposal, a unique UserId and password MUST be used in creating each cover sheet. Otherwise, subsequent uploads will overwrite previous ones. Once each upload is complete, a confirmation will appear and should be printed for the proposer's records.

      Since proposers may encounter heavy traffic on the web server, they should not wait until the day the proposal is due to fill out a coversheet and upload the submission! Technical support for the web server/submission issues may be reached at BAATechHelp@darpa.mil and is typically available during regular business hours (9:00 – 5:00 ET, Monday-Friday).

      All uploaded proposals must be zipped and encrypted using Winzip or PKZip with 256-bit AES encryption. Only one zipped/encrypted file will be accepted per submission. Submissions which are not zipped/encrypted will be rejected by DARPA. An encryption password form must be completed and emailed to the BAA mailbox at the time of submission. See https://www.csc-ballston.com/baa/password.doc for the encryption password form. Note: the word "PASSWORD" must appear in the subject line of the above email. Failure to provide the encryption password will result in the submission not being evaluated.

   b. **Cooperative Agreement Proposers:** Proposers applying for cooperative agreements may submit through one of the following methods: 1) mailed directly to DARPA or 2) electronic upload per the instructions at http://www.grants.gov/applicants/apply_for_grants.jsp.

      Once Grants.gov has received an uploaded proposal submission, Grants.gov will send two email messages to advise proposers as to whether or not their proposals have been validated or rejected by the system; it may take up to two

days to receive these emails. The first email will confirm receipt of the proposal by the Grants.gov system; this email only confirms receipt, not acceptance, of the proposal. The second will indicate that the proposal has been successfully validated by the system prior to transmission to DARPA or has been rejected due to errors. If the proposal is validated, then the proposer has successfully submitted their proposal. If the proposal is rejected, the proposer will have to resubmit their proposal. Once the proposal is retrieved by DARPA, the proposer will receive a third email from Grants.gov. Once the proposal is accepted by DARPA, the proposer will receive an email from DARPA acknowledging receipt and providing a control number.

To avoid missing deadlines, proposers should submit their proposals in advance of the final proposal due date with sufficient time to receive confirmations and correct any errors in the submission process through Grants.gov.

Technical support for Grants.gov submissions may be reached at 1-800-518-4726 and support@grants.gov.

3. **Classified Submission:** DARPA anticipates that proposals submitted under this BAA will be unclassified. Classified proposals must be appropriately marked and must not be submitted electronically by any means, including the electronic upload system or Grants.gov, as described above.

   Classified materials must be submitted in accordance with the following guidelines:

   - *Confidential and Secret Collateral Information*: Use classification and marking guidance provided by previously issued security classification guides, DoD 5200.1-R "Information Security Regulation" and DoD 5220.22-M "National Industrial Security Program Operating Manual," when marking and transmitting information previously classified by another OCA. All classified information will be enclosed in opaque inner and outer covers and double wrapped. The inner envelope shall be sealed and plainly marked with the assigned classification and addresses of both sender and addressee. Classified information at the Confidential or Secret level may be submitted via one of the following methods:

     - Hand carried by an appropriately cleared and authorized courier to DARPA. Prior to traveling, the courier shall contact the DARPA Classified Document Registry (CDR) at 703-526-4052 to coordinate arrival and delivery

     or

     - Mailed via appropriate U.S. Postal Service methods (e.g., Registered Mail or Express Mail). All classified information will be enclosed in opaque inner and outer covers and double wrapped. The inner envelope shall be sealed and plainly marked with the

assigned classification and addresses of both sender and addressee.

The inner envelope shall be addressed to:

Defense Advanced Research Projects Agency
ATTN: I2O BAA Coordinator
Reference: DARPA-BAA-12-06
3701 North Fairfax Drive
Arlington, VA 22203-1714

The outer envelope shall be sealed without identification as to the classification of its contents and addressed to:

Defense Advanced Research Projects Agency
Security & Intelligence Directorate, Attn: CDR
3701 North Fairfax Drive
Arlington, VA 22203-1714

- *Top Secret Information:* Top Secret information must be hand carried by an appropriately cleared and authorized courier to DARPA. Prior to traveling, the courier must contact DARPA CDR at 703-526-4052 for instructions.

- *Special Access Program (SAP) Information:* SAP information must be transmitted via approved methods. Prior to submission, the courier must contact DARPA SAPCO at 703-526-4052 for instructions.

- *Sensitive Compartmented Information (SCI):* SCI must be transmitted via approved methods. Prior to submission, contact DARPA CDR at 703-526-4052 for instructions.

E. Intergovernmental Review

Not applicable.

F. Funding Restrictions

Not applicable.

V. EVALUATION

A. Evaluation Criteria

Evaluation of proposals will be accomplished through a scientific/technical review of each proposal using the following criteria listed in descending order of importance.

- **Overall Scientific and Technical Merit:** The proposed technical approach is feasible, achievable, complete and supported by a proposed technical team that has the expertise and experience to accomplish the proposed tasks. This is not meant to suggest that there is an expectation of guaranteed success in high risk research, only that the approach itself is sound and when executed can be expected to determine the accuracy of the proposed theorem. Task descriptions and associated technical elements are complete and in a logical sequence, with all proposed deliverables clearly defined such that a viable attempt to achieve effort goals is likely as a result of award. The proposal identifies major technical risks, and mitigation efforts are clearly well-defined and feasible. Specific items evaluated under this criterion include the following:

  For TA1 proposals:
  - The description of what is being captured and measured to validate the identity of the individual at the console.
  - The expected viability, reliability, and accuracy of the proposed technology.
  - The specific description of the expected false alarm rates
  - The testing information including
    - whether human test subjects will be used,
    - the method of testing to be performed,
    - the method of acquiring test subjects,
    - the planned number of test subjects and,
    - how the proposed sample size and testing method is statistically significant.
  - How the proposer intends to demonstrate/present their quantitative findings (e.g., mathematical models).

  For TA3a (Adversarial Partner) proposals:
  - How the proposer intends to evaluate the security of the research concepts developed in Phase 1 for TA1.
  - How the proposer intends to evaluate the security of the operational pilot technologies developed in Phase 2 and 3 for TA1 and TA2.
  - How the proposer would evaluate the ability of an adversary to breach a new biometric being developed.
  - The description of the expected attack vectors that would be available for adversaries and how developers could protect against those attack vectors.

  For TA3b (IV&V) proposals:
  - How the proposer intends to evaluate the design and function of the technologies developed in TA1.

- How the proposer intends to evaluate the risk introduced.
- The description of the expected attack vectors that would be available for adversaries.
- How developers could protect against the expected attack vectors.

- **Potential Contribution and Relevance to the DARPA Mission:** The potential contributions of the proposed effort with relevance to the national technology base will be evaluated. Specifically, DARPA's mission is to maintain the technological superiority of the U.S. military and prevent technological surprise from harming our national security by sponsoring revolutionary, high-payoff research that bridges the gap between fundamental discoveries and their application. In addition, the evaluation will take into consideration the extent to which the proposed intellectual property (IP) rights will potentially impact the Government's ability to transition the technology.

  Evaluation of TA1 proposals will include an assessment of the proposer's ability to address operational and user privacy issues related to use of the technology.

  Evaluation of TA3b proposals will include an assessment of how the proposer intends to evaluate privacy protections in the technologies developed in TA1 and TA2.

- **Management Plan:** The strength of the proposed team and the appropriateness of the organizational makeup and structure to address the technical execution of the program. The proposer's ability to realistically estimate the time required to accomplish the goals and objectives of the program and to substantiate these estimates will be evaluated. The identification of areas of schedule risk and the approach to mitigate the risks will be assessed.

- **Cost Realism:** The objective of this criterion is to establish that the proposed costs are realistic for the technical and management approach offered and to determine the proposer's practical understanding of the effort. The proposal will be reviewed to determine if the costs proposed are based on realistic assumptions, reflect a sufficient understanding of the technical goals and objectives of the BAA, and are consistent with the proposer's technical approach (to include the proposed SOW). At a minimum, this review will include, at the prime and subcontract level, the type and number of labor hours proposed per task, the types and quantity of materials, equipment and fabrication costs, travel and other various elements proposed. The evaluation criterion recognizes that undue emphasis on cost may motivate proposers to offer low-risk ideas with a minimum uncertainty and to staff the effort with junior personnel to be in a more competitive posture. Cost strategies such as these are discouraged.

B. Review and Selection Process

DARPA policy is to ensure impartial, equitable, comprehensive proposal evaluations and to select sources whose offers meet the DARPA technical, policy, and programmatic goals.

In order to provide the desired evaluation, qualified Government personnel will conduct

reviews and (if necessary) convene panels of experts in the appropriate areas. Subject to the restrictions set forth in FAR 37.203(d), input on technical aspects of the proposals may be solicited by DARPA from non-Government consultants/experts who are strictly bound by appropriate nondisclosure requirements.

The review process identifies proposals that meet the established criteria and are, therefore, selectable for funding awards by the Government. Selections under this BAA will be made to proposers on the basis of the evaluation criteria listed in Section V.A. Proposals that are determined to be selectable will not necessarily receive awards due in part on fund availability. Selections may be made at any time during the period of solicitation.

Proposals are evaluated individually, not rated competitively against other proposals because they are not submitted in accordance with a common work statement. For purposes of evaluation, a proposal is defined to be the document and supporting materials as described in Section IV (including Appendix A but not including Appendix B).

Failure to comply with the submission procedures may result in the submission not being evaluated.

No proposals, classified or unclassified, will be returned. After proposals have been evaluated and selections made, the original electronic copy of each proposal will be retained at DARPA. Hard copies will be destroyed.

VI. AWARD ADMINISTRATION

A. Selection Notices

After proposal evaluation is complete, proposers will be notified whether their proposals are selectable as determined by the review process. The Government may initiate contract negotiations if the proposal has been selected for immediate funding. Notification will be sent by email to the technical and administrative POCs identified on the proposal coversheet.

B. Administrative and National Policy Requirements

1. **Meeting and Travel Requirements:** See Section I.B and I.C.3 for specific information.

2. **Intellectual Property:** It is desired that all noncommercial software (including source code), software documentation, hardware designs and documentation, and technical data generated under the program be provided as a deliverable to the Government, with a minimum of Government Purpose Rights. Therefore, to the greatest extent feasible, proposers should not include background proprietary software and technical data as the basis of their proposed approach. If proposers desire to use proprietary software or technical data or both as the basis of their proposed approach, in whole or in part, they should: 1) clearly identify such software/data and its proposed particular use(s); 2) explain how the Government will be able to reach its program goals (including transition) within the proprietary model offered; and 3) provide possible nonproprietary alternatives in any area that might present transition difficulties or increased risk or cost to the Government under the proposed proprietary solution.

   Proposers expecting to use, but not to deliver, commercial open source tools or other materials in implementing their approach may be required to indemnify the Government against legal liability arising from such use.

   All references to "Unlimited Rights" or "Government Purpose Rights" are intended to refer to the definitions of those terms as set forth in the Defense Federal Acquisition Regulation Supplement (DFARS) Part 227.

   a. Procurement Contracts

   Noncommercial Items (Technical Data and Computer Software): Proposers responding to this BAA requesting a procurement contract shall identify all noncommercial technical data and computer software that it plans to generate, develop, and/or deliver under any proposed award instrument in which the Government will acquire less than unlimited rights and to assert specific restrictions on those deliverables. The following format should be used for this list:

NONCOMMERCIAL				
Technical Data Computer Software To be Furnished With Restrictions	Summary of Intended Use in the Conduct of the Research	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
(LIST)	(Narrative)	(LIST)	(LIST)	(LIST)

If no restrictions are intended, the proposer should state "NONE."

In the event proposers do not submit the list, the Government will assume that it automatically has "unlimited rights" to all noncommercial technical data and computer software generated, developed, and/or delivered under any award instrument, unless it is substantiated that development of the noncommercial technical data and computer software occurred with mixed funding. If mixed funding is anticipated in the development of noncommercial technical data and computer software generated, developed, and/or delivered under any award instrument, proposers should identify the data and software in question as subject to Government purpose rights (GPR). In accordance with DFARS 252.227-7013, "Rights in Technical Data - Noncommercial Items," and DFARS 252.227-7014, "Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation," the Government will automatically assume that any such GPR restriction is limited to a period of 5 years in accordance with the applicable DFARS clauses, at which time the Government will acquire unlimited rights unless the parties agree otherwise. The Government will use the list during the evaluation process to evaluate the impact of any identified restrictions and may request additional information from the proposer, as may be necessary, to evaluate the proposer's assertions. Failure to provide full information may result in a determination that the proposal is not compliant with the BAA.

- **Commercial Items (Technical Data and Computer Software):** Proposers responding to this BAA requesting a procurement contract to be issued under the FAR/DFARS shall identify all commercial technical data and commercial computer software that may be included in any noncommercial deliverables contemplated under the research effort, with any applicable restrictions on the Government's use of such commercial technical data and/or computer software. In the event proposers do not submit the list, the Government will assume there are no restrictions on the Government's use of such commercial items. The Government may use the list during the evaluation process to evaluate the impact of any identified restrictions and may request additional information from the proposer to evaluate the proposer's assertions. Failure to provide full information may result in a determination that the proposal is not compliant with the BAA.

The following format should be used for this list:

COMMERCIAL				
Technical Data Computer Software To be Furnished With Restrictions	Summary of Intended Use in the Conduct of the Research	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
(LIST)	(Narrative)	(LIST)	(LIST)	(LIST)

If no restrictions are intended, the proposer should state "NONE."

b. Other Types of Awards: Proposers responding to this BAA requesting cooperative agreements or other transactions shall follow the applicable rules and regulations governing these various award instruments, but in all cases should appropriately identify any potential restrictions on the Government's use of any intellectual property contemplated under those award instruments in question. This includes both noncommercial items and commercial items. Proposals may use a format similar to that described above. The Government may use the list as part of the evaluation process to assess the impact of any identified restrictions, and may request additional information from the proposer, to evaluate the proposer's assertions. Failure to provide full information may result in a determination that the proposal is not compliant with the BAA.

If no restrictions are intended, the proposer should state "NONE."

c. Patents: Proposers must include documentation proving ownership or possession of appropriate licensing rights to all patented inventions to be used for the proposed project. This includes inventions for which a patent application (1) has been filed, (2) may include proprietary information and (3) is not yet publicly available. Documentation must include: the patent number, inventor name(s), assignee names (if any), filing date, filing date of any related provisional application, and summary of the patent title, with either: (1) a representation of invention ownership, or (2) proof of possession of appropriate licensing rights in the invention (i.e., an agreement from the owner of the patent granting license to the proposer).

d. Intellectual Property Representations: Proposers should provide a good faith representation of either ownership or possession of appropriate licensing rights to all other intellectual property to be used for the proposed project. Proposers shall provide a short summary for each item asserted with less than unlimited rights that describes the nature of the restriction and the intended use of the intellectual property in the conduct of the proposed research.

3. Human Use: All research involving human subjects, to include use of human biological specimens and human data, selected for funding must comply with Federal regulations for human subject protection. Further, research involving

human subjects that is conducted or supported by the DoD must comply with 32 CFR 219, "Protection of Human Subjects" http://www.access.gpo.gov/nara/cfr/waisidx_07/32cfr219_07.html, and DoD Directive 3216.02, "Protection of Human Subjects and Adherence to Ethical Standards in DoD-Supported Research" (http://www.dtic.mil/whs/directives/corres/pdf/321602p.pdf).

Institutions awarded funding for research involving human subjects must provide documentation of a current Assurance of Compliance with Federal regulations for human subject protection, for example a Department of Health and Human Services, Office of Human Research Protection Federal Wide Assurance (http://www.hhs.gov/ohrp). All institutions engaged in human subject research, to include subcontractors, must have a valid assurance. In addition, personnel involved in human subject research must document the completion of appropriate training for the protection of human subjects.

For all research that will involve human subjects in the first year or phase of the project, the institution must submit evidence of a plan for review by an institutional review board (IRB) as part of the proposal. The IRB conducting the review must be the IRB identified on the institution's Assurance of Compliance. The protocol, separate from the proposal, must include a detailed description of the research plan, study population, risks and benefits of study participation, recruitment and consent process, data collection, and data analysis. The designated IRB should be consulted for guidance on writing the protocol. The informed consent document must comply with Federal regulations (32 CFR 219.116). A valid Assurance of Compliance and evidence of appropriate training by all investigators should accompany the protocol for review by the IRB.

In addition to a local IRB approval, a headquarters-level human subject regulatory review and approval is required for all research conducted or supported by DoD. The Army, Navy, or Air Force office responsible for managing the award can provide guidance and information about their component's headquarters-level review process. Confirmation of a current Assurance of Compliance and appropriate human subjects protection training is required before headquarters-level approval can be issued.

The time required to complete the IRB review/approval process will vary depending on the complexity of the research and/or the level of risk to study participants; ample time should be allotted to complete the approval process. The IRB approval process can last between 1 to 3 months, followed by a DoD review that could last 3 to 6 months. No DoD/DARPA funding may be used toward human subject research until all approvals are granted.

4. **Animal Use:** Award recipients performing research, experimentation, or testing involving the use of animals shall comply with the rules on animal acquisition, transport, care, handling, and use in:

- 9 CFR parts 1-4, Department of Agriculture rules that implement the Laboratory Animal Welfare Act of 1966, as amended, (7 U.S.C. 2131-2159);

- Guidelines described in National Institutes of Health Publication No. 86-23, "Guide for the Care and Use of Laboratory Animals"; and

- DoD Directive 3216.01, "Use of Laboratory Animals in DoD Program."

For projects anticipating animal use, proposals should briefly describe plans for Institutional Animal Care and Use Committee (IACUC) review and approval. Animal studies in the program will be expected to comply with the "Public Health Service Policy on Humane Care and Use of Laboratory Animals" at http://grants.nih.gov/grants/olaw/olaw.htm.

All award recipients must receive approval by a DoD-certified veterinarian, in addition to IACUC approval. No animal studies may be conducted using DoD/DARPA funding until the U.S. Army Medical Research and Materiel Command Animal Care and Use Review Office (ACURO) or other appropriate DoD veterinary office(s) grant approval. As a part of this secondary review process, the recipient will be required to complete and submit an ACURO Animal Use Appendix (https://mrmc.amedd.army.mil/index.cfm?pageid=Research_Protections.acuroAnimalAppendix).

5. **Publication Approval:** It is DoD policy that the publication of products of fundamental research will remain unrestricted to the maximum extent possible. Contracted fundamental research:

> "… includes [research performed under] cooperative agreements and contracts that are (a) funded by budget category 6.1 (Basic Research), whether performed by universities or industry or (b) funded by budget category 6.2 (Applied Research) and performed on-campus at a university. The research shall not be considered fundamental in those rare and exceptional circumstances where the applied research effort presents a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense, and where agreement on restrictions have been recorded in the contract or cooperative agreement."
>
> Such research is referred to by DARPA as "Restricted Research."

Pursuant to DoD policy, research performed under cooperative agreements and contracts that are (a) funded by budget category 6.2 (Applied Research) and not performed on-campus at a university or (b) funded by budget category 6.3 (Advanced Research) does not meet the definition of fundamental research. Publication restrictions will be placed on all such research.

Research to be performed as a result of this BAA is expected to be Fundamental. DARPA does not anticipate applying publication restrictions of any kind.

Proposers are advised that, even if the research is performed on a university campus and funded from category 6.1 or 6.2 funds, DARPA may in very rare circumstances, determine that research resulting from the proposed effort will present a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense. Any award resulting from such a determination will include a requirement for DARPA permission before publishing any information or results on the effort and will be considered restricted research.

For certain projects, even if the effort being performed by the prime contractor is restricted research, a subcontractor may be performing contracted fundamental research. In these cases, it is the prime contractor's responsibility to explain in the proposal why the subcontractor's effort will be contracted fundamental research.

The following statements or similar provisions will be incorporated into any resultant restricted research or non-fundamental research procurement contract or other transaction:

> There shall be no dissemination or publication, except within and between the contractor and any subcontractors, of information developed under this contract or contained in the reports to be furnished pursuant to this contract without prior written approval of the DARPA Public Release Center (PRC). All technical reports will be given proper review by appropriate authority to determine which distribution statement is to be applied prior to the initial distribution of these reports by the contractor. With regard to subcontractor proposals for contracted fundamental research, papers resulting from unclassified contracted fundamental research are exempt from prepublication controls and this review requirement, pursuant to DoD Instruction 5230.27 "Presentation of DoD-Related Scientific and Technical Papers at Meetings.
>
> When submitting material for written approval for open publication, the contractor/awardee must submit a request for public release to the DARPA PRC and include the following information: 1) Document Information: title, author, short plain-language description of technology discussed in the material (approximately 30 words), number of pages (or minutes of video) and document type (briefing, report, abstract, article, or paper); 2) Event Information: type (conference, principle investigator meeting, article or paper), date, and desired date for DARPA's approval; 3) DARPA Sponsor: DARPA program manager, DARPA office, and contract number; and 4) Contractor/Awardee's information: POC name, email and telephone. Four weeks should be allowed for processing; due dates under four weeks may require justification. Unusual electronic file formats may require additional processing time. Requests can be sent either via email to

prc@darpa.milor mail to 3701 North Fairfax Drive, Arlington VA 22203-1714, 571-218-4235.

More information regarding DARPA's public release process may be found at http://www.darpa.mil/NewsEvents/Public_Release_Center/Public_Release_Center.aspx .

6. **Export Control:** Per DFARS 204.7304, all procurement contracts and other transactions, as deemed appropriate, resultant from this solicitation will include the DFARS Export Control clause (252.204-7008).

7. **Electronic and Information Technology:** All electronic and information technology acquired through this solicitation must satisfy the accessibility requirements of Section 508 of the Rehabilitation Act (29 U.S.C. 794d) and FAR Subpart 39.2. Each project team involving the creation or inclusion of electronic and information technology must ensure that Federal employees with disabilities will have access to and use of information that is comparable to the access and use by Federal employees who are not individuals with disabilities, and members of the public with disabilities seeking information or services from DARPA will have access to and use of information and data that is comparable to the access and use of information and data by members of the public who are not individuals with disabilities.

8. **Employment Eligibility Verification:** Per FAR 22.1802, recipients of FAR-based procurement contracts must enroll as Federal contractors in E-verify (http://www.uscis.gov/portal/site/uscis) and use the system to verify employment eligibility of all employees assigned to the award. All resultant contracts from this solicitation will include a clause from FAR 52.222-54, "Employment Eligibility Verification." This clause will not be included in cooperative agreements or other transactions.

9. **Reporting Executive Compensation and First-Tier Subcontract Awards:** Per FAR 4.1403, FAR-based procurement contracts of $25,000 or more will include a clause from FAR 52.204-10, "Reporting Executive Compensation and First-Tier Subcontract Awards." A similar award term will be used in cooperative agreements and other transactions. This clause is not required in classified contracts.

10. **Updates of Information Regarding Responsibility Matters:** Per FAR 9.104-7(c), FAR-based procurement contracts more than $500,000 and if the proposer has active Federal contracts and cooperative agreements with a total value more than $10,000,000, will include a clause from FAR 52.209-9 "Updates of Publically Available Information Regarding Responsibility Matters."

C. Reporting

The number and types of technical and financial reports required under the awarded effort will be specified in the award document, and will include, at a minimum, monthly status reports, addressing both financial and technical progress. The reports shall be prepared and submitted

in accordance with the procedures contained in the award document. A final report that summarizes the project and tasks will be required at the conclusion of the performance period for the award.

D. Electronic Systems

1. **Central Contractor Registration (CCR) and Universal Identifier Requirements:** Unless the proposer is exempt from this requirement, as per FAR 4.1102 or 2 CFR 25.110, as applicable, all proposers must be registered in the Central Contractor Registration (CCR) and have a valid Data Universal Numbering System (DUNS) number. Information on CCR registration is available at http://www.ccr.gov. All proposers must provide the DUNS number in each proposal they submit.

   Proposers requesting an assistance instrument (e.g., Cooperative Agreements) must be registered in CCR prior to submitting a proposal. DARPA cannot make an assistance award to a proposer until the proposer has provided a valid DUNS number and has maintained an active CCR registration with current information. All other proposers must be registered prior to award. All proposers must maintain an active CCR registration with current information at all times during which they have an active Federal award.

2. **Representations and Certifications**: In accordance with FAR 4.1201, prospective proposers shall complete electronic annual representations and certifications. Information may be found at http://www.darpa.mil/Opportunities/Contract_Management/Representations_and_Certifications.aspx.

3. **i-Edison:** The award document for each proposal selected for funding will contain a requirement for patent reports and notifications to be submitted electronically through the i-Edison Federal patent reporting system at (http://s-edison.info.nih.gov/iEdison).

4. **Technical – Financial Information Management System (T-FIMS):** Financial and Technical status reports must be submitted electronically at https://www.tfims.darpa.mil.

VII. AGENCY CONTACTS

DARPA will use email for all technical and administrative correspondence regarding this BAA.

- **Technical POC**: Mr. Richard Guidorizzi, Program Manager, DARPA/I2O
- **BAA Email**: ActiveAuthentication@darpa.mil
- **BAA Mailing Address**:
    - DARPA/I2O
      ATTN: DARPA-BAA-12-06
      3701 North Fairfax Drive
      Arlington, VA 22203-1714

- **I2O Solicitation Website:**
  http://www.darpa.mil/Opportunities/Solicitations/I2O_Solicitations.aspx

VIII. OTHER INFORMATION

A. Frequently Asked Questions (FAQs)

Administrative, technical, and contractual questions should be sent via email to ActiveAuthentication@darpa.mil. All requests must include the name, email address, and the phone number of a point of contact.

DARPA will attempt to answer questions in a timely manner; however, questions submitted within 7 days of the closing may not be answered. If applicable, DARPA will post FAQs to http://www.darpa.mil/Our_Work/I2O/Programs/Active_Authentication.aspx.

B. Collaborative Efforts/Teaming

It is DARPA's desire to receive comprehensive, quality responses to this BAA. To assist those wanting to form strong, collaborative teaming efforts and business relationships, a website (https://www.schafertmd.com/darpa/i2o/aa/teaming/people.php) has been established to facilitate formation of teaming arrangements between interested parties. Specific content, communications, networking, and team formation are the sole responsibility of the participants. Neither DARPA nor the Department of Defense (DoD) endorses the destination web site or the information and organizations contained therein, nor does DARPA or the DoD exercise any responsibility at the destination. This website is provided consistent with the stated purpose of this BAA.

C. Proposers Day

The Proposers' Day was held November 18, 2011 in Arlington, Virginia. Attendance at the Proposers' Day was voluntary and not required to propose to this solicitation.

The webcast from the Proposers' Day is posted at http://www.darpa.mil/Our_Work/I2O/Programs/Active_Authentication.aspx.

D. Submission Checklist

The following items apply prior to proposal submission:

✓	Item	BAA Section	Applicability	Comment
	Obtain DUNS number	IV.B.1.a	Required on proposal cover page	http://fedgov.dnb.com/webform/index.jsp The DUNS Number is the Federal Government's contractor identification code for all procurement-related activities.
	Enroll in Central Contractor Registration (CCR) database	IV.B.1.a	Required of all proposers Note, proposers requesting an assistance instrument (e.g., Cooperative Agreements)	https://www.bpn.gov/CCR/default.aspx The CCR is the primary registrant database for the U.S. Federal Government.

			must be registered in CCR prior to proposal submission. All other proposers must be registered prior to award.	
	Obtain Taxpayer Identification Number (TIN)	IV.B.1.a	Required on proposal cover page	http://www.irs.gov/businesses/small/international/article/0,,id=96696,00.html A TIN is used by the Internal Revenue Service in the administration of tax laws.
	Obtain CAGE code	IV.B.1.a	Required on proposal cover page	http://www.dlis.dla.mil/CAGESearch/cage_faq.asp A CAGE Code identifies companies doing or wishing to do business with the Federal Government.
	Enroll in E-Verify	VI.B.8	Applies to FAR-based contracts, not to cooperative agreements or other transactions	http://www.uscis.gov/e-verify E-Verify is an Internet-based system that allows businesses to determine the eligibility of their employees to work in the United States.
	Ensure representations and certifications are up to date	VI.C.2	Required of all proposers	https://orca.bpn.gov/ Online Representations and Certifications Application (ORCA) is an e-Government initiative designed by the Integrated Acquisition Environment to replace the paper-based representations and certifications process.
	Ensure eligibility of all team members	III	Required of all proposers (primes and subcontractors)	Verify eligibility, as applicable, for FFRDCs, Government entities, organizational conflict of interest

The following items apply as part of the submission package:

✓	**Item**	**BAA Section**	**Applicability**	**Comment**
	Encryption password	IV.D.2.a	Required of proposers using the DARPA BAA Submission System	Email to ActiveAuthentication@darpa.mill
	Volume 1 (Technical and Management)	IV.B.1	Required of all proposers	Proposers must abide by page limits.
	Appendix A	IV.B.1.k	Required of all proposers	- Information on team member identification - Government/FFRDC team members - Organizational conflict of interest (SETA) affirmations

				- Intellectual property - Human use - Animal use - Subcontractor plan
	Appendix B	IV.B.1.l		Bibliography
	Volume 2 (Cost)	IV.B.2	Required of all proposers	- Cover Sheet - Cost summary by year - Detailed cost information by task/month – include costs for direct labor, indirect costs/rates, materials/equipment, subcontractors/ consultants, travel, other direct costs – Justification for labor costs, categories and hours - Cost spreadsheet file (.xls or equivalent format) If applicable, be sure to include: - List of milestones for 845 OTA agreements - Subcontractor cost proposals if not sent directly to DARPA - Consultant agreements, teaming agreements or letters of intent - Itemized list of material and equipment items to be purchased - Vendor quotes or engineering estimates for material and equipment more than $50,000 - Travel cost estimate to include purpose, departure and arrival destinations, and sample airfare