

# **Broad Agency Announcement**

Cyber Grand Challenge (CGC): Automated Cyber Reasoning

DARPA-BAA-14-05

November 27, 2013

Amendment 2



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**Defense Advanced Research Projects Agency**

Information Innovation Office

675 North Randolph Street

Arlington, VA 22203-2114

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## Part I: Overview

- **Federal Agency Name:** Defense Advanced Research Projects Agency (DARPA), Information Innovation Office (I2O)
- **Funding Opportunity Title:** Cyber Grand Challenge (CGC): Automated Cyber Reasoning
- **Announcement Type:** Amendment 2
- **Funding Opportunity Number:** DARPA-BAA-14-05
- **Catalog of Federal Domestic Assistance Numbers (CFDA):** Not Applicable
- **Dates**
  - Posting Date: October 22, 2013
  - Proposal Due Date: January 14, 2014, 12:00 noon (ET)
  - Competitor Days: Specific dates and locations are TBD but DARPA anticipates holding the Competitor Days in the first two weeks of December 2013, approximately one week apart. The first will be held on December 3 and 4, 2013, in Arlington, VA, and the second will be held December 9, 2013, in San Francisco, CA at ~~TBD location on the West Coast~~. DARPA may post additional Competitor Day details in a future solicitation amendment on Fedbizopps. See Section 8.3 for details.
- **Anticipated Individual Awards:** DARPA anticipates multiple awards of \$750,000 per phase of a two-phase effort.
- **Types of Instruments that May be Awarded:** Firm-Fixed-Price Procurement Contracts or Other Transactions.
- **Technical POC:** Michael Walker, Program Manager, DARPA/I2O
- **BAA Email:** [CGC-CompetitorBAA@darpa.mil](mailto:CGC-CompetitorBAA@darpa.mil)
- **BAA Mailing Address:**

DARPA/I2O, ATTN: DARPA-BAA-14-05  
675 North Randolph Street  
Arlington, VA 22203-2114
- **I2O Solicitation Website:** [http://www.darpa.mil/Opportunities/Solicitations/I2O\\_Solicitations.aspx](http://www.darpa.mil/Opportunities/Solicitations/I2O_Solicitations.aspx)
- **Cyber Grand Challenge Website:** [www.darpa.mil/cybergrandchallenge](http://www.darpa.mil/cybergrandchallenge)

## Part II: Full Text of Announcement

### 1. FUNDING OPPORTUNITY DESCRIPTION

The Defense Advanced Research Projects Agency (DARPA) will host the Cyber Grand Challenge (CGC), an unmanned cyber defense tournament. In support of this challenge, DARPA is soliciting innovative proposals from teams that will develop and field autonomous Cyber Reasoning Systems capable of comprehending and protecting software during a live exercise. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice.

DARPA recommends that all parties interested in proposing to this Broad Agency Announcement (BAA) or participating in the CGC review the CGC website ([www.darpa.mil/cybergrandchallenge](http://www.darpa.mil/cybergrandchallenge)) and, in particular, the CGC Rules document for a full description of the CGC. Eligible parties may enter the CGC on the Proposal Track through receiving an award under this Broad Agency Announcement, or through open entry on the Open Track<sup>1</sup>. Any individual or entity receiving an award under this BAA may not participate in the CGC as an Open Track competitor or receive an award under DARPA-BAA-14-03.

This BAA is being issued, and any resultant selection will be made, using procedures under Federal Acquisition Regulation (FAR) 35.016. Any negotiations and/or awards will use procedures under FAR 15.4. Proposals received as a result of this BAA shall be evaluated in accordance with evaluation criteria specified herein through a scientific review process. DARPA BAAs are posted on the Federal Business Opportunities (FBO) website (<http://www.fbo.gov/>).

#### 1.1. Purpose

Top computer security experts test their skill head-to-head in competitive “Capture the Flag” contests. These contests provide a competition rating for the ability of experts to locate and comprehend security weaknesses.

The DARPA Cyber Grand Challenge will utilize a series of competition events to test the abilities of a new generation of fully automated cyber defense systems. During a final competition event, automated Cyber Reasoning Systems will compete against each other in real time. This event will be held in a public setting and documented for research purposes.

The CGC seeks to engender a new generation of autonomous cyber defense capabilities that combine the speed and scale of automation with reasoning abilities exceeding those of human experts.

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<sup>1</sup> See the CGC Rules for a description of the Open Track.

## 1.2. Overview

The Department of Defense (DoD) maintains information systems using a software technology base comprised of Commercial Off The Shelf (COTS) operating systems and applications. This COTS technology base is common to the DoD, industry, and the Defense Industrial Base, and the continual discovery of potential vulnerabilities in this software base has led to a constant cycle of intrusion, compromise discovery, patch formulation, patch deployment and recovery. This defensive cycle is currently performed by highly trained software analysts; it is the role of these analysts to reason about the function of software, identify novel threats and remove them. Manual analysis of code and threats is an artisan process, often requiring skilled analysts to spend weeks or months analyzing a problem. The size of the technology base also contributes to the difficulty of manually discovering vulnerabilities.

At the present time, automated program analysis capabilities are able to assist the work of human software analysts. These automation technologies include Dynamic Analysis, Static Analysis, Symbolic Execution, Constraint Solving, Data Flow Tracking, Fuzz Testing, and a multitude of related technologies. In the Cyber Grand Challenge, a competitor will improve and combine these semi-automated technologies into an unmanned Cyber Reasoning System (CRS) that can autonomously reason about novel program flaws, prove the existence of flaws in networked applications, and formulate effective defenses. The performance of these automated systems will be evaluated through head-to-head tournament style competition.

The CGC program will draw widespread attention to the technology issues associated with autonomous software comprehension and motivate entrants to overcome technical challenges to realize truly effective autonomous cyber defense. This program will challenge the most capable and innovative companies, institutions, and entrepreneurs to produce breakthroughs in capability and performance.

## 1.3. Objectives

Currently, network Intrusion Detection Systems, software security patches, and vulnerability scanners are all forms of *signature based defense*: defensive systems which act on discrete quanta of human knowledge (“signatures”). Human analysts develop these signatures through a process of reasoning about software. In fully autonomous defense, a cyber system capable of reasoning about software will create its own knowledge, autonomously emitting and using knowledge quanta such as vulnerability scanner signatures, intrusion detection signatures, and security patches.

The objective of this program is to identify effective, integrated automation of cyber reasoning tasks as assessed by the Areas of Excellence (AoE) in Table 1. These AoE address the protection of compiled test software (“Challenge Binaries” or “CBs”) operated on a closed, monitored network (“Competition Framework”).

	<b>Areas of Excellence (AoE)</b>	<b>CGC Qualification Event (CQE)</b>	<b>CGC Final Event (CFE)</b>
1	<b>Autonomous Analysis:</b> The automated comprehension of computer software (e.g., CBs) provided through a Competition Framework.	✓	✓
2	<b>Autonomous Patching:</b> The automatic patching of security flaws in CBs provided through a Competition Framework.	✓	✓
3	<b>Autonomous Vulnerability Scanning:</b> The ability to construct input which when transmitted over a network provides proof of the existence of flaws in CBs operated by competitors. These inputs shall be regarded as Proofs of Vulnerability.	✓	✓
4	<b>Autonomous Service Resiliency:</b> The ability to maintain the availability and intended function of CBs provided through a Competition Framework.	✓	✓
5	<b>Autonomous Network Defense:</b> The ability to discover and mitigate security flaws in CBs from the vantage point of a network security device.		✓

**Table 1 - Areas of Excellence**

As stated above, DARPA recommends that all parties interested in participating in the CGC read the CGC Rules document, which describes the CGC in detail. Eligible parties may enter the CGC on the Proposal Track through receiving an award under this BAA, or through open entry on the Open Track<sup>2</sup>. Any individual or entity receiving an award under this BAA may not participate in the CGC as an Open Track competitor or receive an award under DARPA-BAA-14-03.

#### **1.4. Proposals for Automated Cyber Reasoning**

Strong proposals should both describe a revolutionary attempt at integrated, autonomous cyber reasoning that addresses the Areas of Excellence (AoE) found in Table 1, as well as articulate an integration plan which describes how each of the technologies addressing the AoE will work together in a competition-ready Cyber Reasoning System (CRS).

The CGC competitions require a fully automated solution – no human assistance is permitted in any cyber reasoning processes, including reverse engineering and patch formulation. Therefore, proposals for solutions that are not fully automated will be considered out of scope.

<sup>2</sup> See the CGC Rules for a description of the Open Track.

## 1.5. Program Structure

The program will consist of two phases, each ending with a competitive evaluation: the CGC Qualification Event (CQE) Phase and the CGC Final Event (CFE) Phase. In order to continue to the CFE Phase, performers must receive Phase Authorization. See Section 2.3 for further information on Phase Authorization.

DARPA anticipates that awards under this BAA will be either firm-fixed-price procurement contracts or 845 Other Transaction for Prototype (OT) agreements<sup>3</sup> with payments in each phase to be based on the milestones/deliverables outlined below. Each milestone has a value expressed as a recommended percentage of each phase's award value; for OT awards, this percentage refers to the Government's share. This list of milestones will form the basis of the Statement of Work (SOW) to be incorporated in the awards (see Section 4.2.1.1.7.).

### CQE Phase

During the initial 12 months of development, performers will begin work on a CRS capable of Autonomous Comprehension, Testing and Resilience (see AoE 1 - 4 in Table 1). Performers will be provided with an example set of CBs to use during development. Payments during the CQE Phase will align with the following deliverables:

#### *Public Capabilities Description (26%)*

Performers will deliver a paper describing the CRS approach to be used. This document shall contain no proprietary information and will be shared with parties building CGC infrastructure.

#### *CQE Mid Term Report (26%)*

Performers will deliver an interim progress report consisting of the following components:

- An Executive Summary describing CQE Phase progress to date.
- A description of roadblocks and technical issues encountered during development.
- Technical progress logs which show the midpoint performance of the CRS. Midpoint performance data will show the current level of function of the CRS in each CQE AoE from Table 1 (AoE 1 - 4). Midpoint performance data should be generated through processing the example CB set. Logs will be delivered in a human readable format to be independently evaluated.

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<sup>3</sup> See [http://www.darpa.mil/Opportunities/Contract\\_Management/Contract\\_Management.aspx](http://www.darpa.mil/Opportunities/Contract_Management/Contract_Management.aspx) for information on award types.

- CRS computer software<sup>4</sup> (source code) developed to date under DARPA funding as described in the sections on Intellectual Property below (1.6 and 6.2.1).

#### *CQE Technical Paper (6%)*

Prior to the CQE, performers must deliver a CQE Technical Paper conforming to the CGC Technical Paper Guidelines<sup>5</sup>. CQE Technical Papers are due in March 2015. See the CGC website for specific due dates.

#### *CQE Milestone (26%)*

At the end of CQE phase development, a performer CRS functioning autonomously must mitigate a flaw from at least one CQE CB while retaining some of the original CB functionality. This milestone will be evaluated by DARPA.

#### *CQE System Demonstration (6%)*

All performers must demonstrate the function of their CRS during a DARPA site visit.

#### *CQE Source Code Delivery (10%)*

Performers must deliver the CRS computer software (source code) developed to date under DARPA funding as described in sections 1.6 and 6.2.1.

As stated above, performers must complete each CQE Phase milestone to receive payment. Once these milestones have been completed to DARPA's satisfaction, top performers at the CQE are eligible for Phase Authorization.

### CFE Phase

During the second 12 months of development, performers will continue work towards a competition-ready CRS capable of integrated function across all AoE in Table 1. Payments during the CFE Phase will align with the following deliverables:

#### *Post-CQE System Evaluation (32%)*

Performers will deliver a paper describing successes, failures, and lessons learned through the processing of the CQE CB set. Papers should describe unsolved challenges discovered during the CQE and a path for CRS improvement to address these challenges.

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<sup>4</sup> All references to "computer software" or "technical data" are intended to refer to the definitions of those terms as set forth in FAR 2.101.

<sup>5</sup> CGC Technical Paper Guidelines will be posted on the CGC website.



### *CFE Mid Term Report (32%)*

Performers will deliver an interim progress report consisting of the following components:

- An Executive Summary describing CFE Phase progress to date.
- A description of roadblocks and technical issues encountered during development.
- Technical progress logs which show the midpoint performance of the CRS. Midpoint performance data will show the current level of function of the CRS in all AoE from Table 1. Midpoint performance data should be generated through processing the CQE CB set. Logs will be delivered in a human readable format to be independently evaluated.
- CRS computer software (source code) developed to date under DARPA funding as described in sections 1.6 and 6.2.1.

### *CFE Interoperability Milestone (13%)*

Performers must demonstrate the interoperability of their CRS with the Cyber Grand Challenge Competition Framework. To pass interoperability testing, a performer CRS functioning autonomously must receive a Challenge Binary from the Competition Framework and field a defended version of the CB on a networked host.

### *CFE Milestone (7%)*

At the end of CFE phase development, performers must pass the CFE milestone. To pass this milestone, a performer CRS functioning autonomously must demonstrate the ability to formulate a Proof of Vulnerability which demonstrates Area of Excellence 3 from Table 1 against at least one CFE CB.

### *CFE Technical Paper (6%)*

At the end of CFE phase development, performers must deliver a CFE Technical Paper conforming to the CGC Technical Paper Guidelines.

### *CFE Source Code Delivery (10%)*

Performers must deliver all CRS computer software (source code) developed under DARPA funding as described in sections 1.6 and 6.2.1.

## 1.6. Intellectual Property<sup>6</sup>

Proposers should note that the Government does not own the intellectual property of noncommercial, technical data/computer software developed with Government funds; it instead acquires the right to use the technical data/computer software. The extent of these license rights depends on the development's source of funding. Regardless of the scope of the Government's rights, performers may freely use their same data/software for their own commercial purposes (unless restricted by U.S. export control laws or security classification). Therefore, technical data and computer software developed under DARPA-BAA-14-05 will remain the property of the performers.

A key goal of the CGC program is the release of CQE and CFE event recordings into the public domain. To facilitate this, proposers are strongly encouraged to assert intellectual property rights that are aligned with this goal. Data recorded during the CQE and CFE will include, but is not limited to:

- All event packet capture data.
- All event instruction trace data.
- All event memory snapshots.
- All modified CBs.
- All CB outputs.
- All event scoring data.

See Section 6.2.1 for further information.

## 1.7. Schedule

The schedule listed herein contains tentative estimates. Proposers should submit a detailed schedule that includes the milestones/deliverables described in Section 1.5, is consistent with the maturity of their approaches and the risk reduction required for their concepts. These schedules will be synchronized across performers, as required, and monitored/revised as necessary throughout the CGC program's period of performance. For budgeting purposes, the anticipated start date for the program is June 1, 2014. As detailed in the CGC Rules, Open Track and Proposal Track teams will proceed, in parallel, in two phases: the CQE phase, aligned with the CQE, and the CFE Phase, aligned with the CFE. Rankings in the CQE and the CFE will be based on the same technical criteria and scoring mechanisms for all competitors, irrespective of track. A tentative timeline is shown in Figure 1.

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<sup>6</sup> See Defense Federal Acquisition Regulation Supplement (DFARS) 252.227 for definitions of the terms used in this section and section 6.2.1.

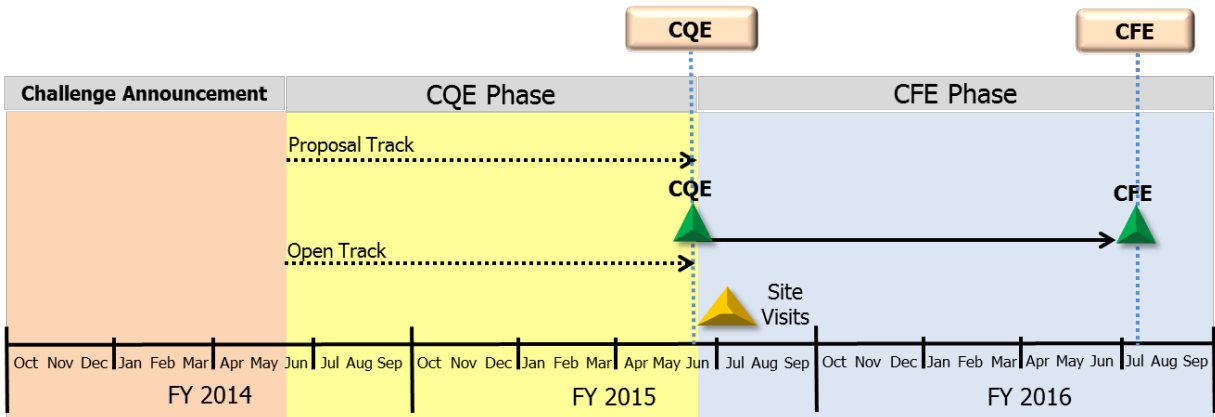


Figure 1 Tentative Timeline

## **2. AWARD INFORMATION**

### **2.1. Awards**

Multiple awards are anticipated. The level of funding for individual awards made under this solicitation has not been predetermined except where annotated and will depend on the quality of the proposals received and the availability of funds. 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. See Section 5.2. for further information.

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 with proposers 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 increments with options for continued work at the end of one or more phases;
- request additional documentation once the award instrument has been determined (e.g., representations and certifications); and,
- 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.

Proposals selected for award negotiation may result in a firm-fixed-price (FFP) procurement contract or other transaction (OT) depending upon the nature of the work proposed, the required degree of interaction between parties, and other factors. In all cases, the Government contracting officer shall have sole discretion to select award instrument type and to negotiate all instrument terms and conditions with selectees. Publication or other restrictions will be applied, as necessary, if DARPA determines that the 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 program. For more information on publication restrictions, see Section 2.2.

### **2.2. Fundamental Research**

It is Department of Defense (DoD) policy that the publication of products of fundamental research will remain unrestricted to the maximum extent possible. National Security Decision Directive (NSDD) 189 established the national policy for controlling the flow of scientific,

technical, and engineering information produced in federally funded fundamental research at colleges, universities, and laboratories. NSDD 189 defines fundamental research as follows:

'Fundamental research' means basic and applied research 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.

As of the date of publication of this BAA, DARPA cannot identify whether the work awarded under this BAA may be considered fundamental research; both fundamental and non-fundamental research may be awarded. Proposers should indicate in their proposal whether they believe the scope of the proposed research is fundamental. For certain efforts, it may be possible that although the research to be performed by the prime is non-fundamental, a subcontractor's tasks may be considered fundamental research. In those cases, it is the prime proposer's responsibility to explain in their proposal why its subcontractor's effort is fundamental research. While proposers should clearly explain the intended results of their research, DARPA shall have sole discretion to determine whether the project is considered fundamental research.

Awards for non-fundamental research will include the following statement or similar provision:

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 DARPA's Public Release Center (DARPA/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 dated October 6, 1987.

When submitting material for written approval for open publication, the contractor/awardee must submit a request for public release to the PRC and include the following information: 1) Document Information: title, author, short plain-language description of technology discussed in the material (approx. 30 words), number of pages (or minutes of video) and type (e.g., briefing, report, abstract, article, or paper); 2) Event Information: type (e.g., conference, principal investigator meeting, article or paper), date, 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, e-mail address and phone number. Allow four weeks for processing; due dates under four weeks require a justification. Unusual electronic file formats may require additional processing time. Requests may be sent either to [prc@darpa.mil](mailto:prc@darpa.mil) or 675 North Randolph Street, Arlington VA 22203-2114, telephone (571) 218-4235. See

[http://www.darpa.mil/NewsEvents/Public\\_Release\\_Center/Public\\_Release\\_Center.aspx](http://www.darpa.mil/NewsEvents/Public_Release_Center/Public_Release_Center.aspx) for further information about DARPA's public release process.

### **2.3. Phase Authorization**

At the end of the CQE Phase, DARPA unilaterally reserves the right to proceed to the CFE Phase with potentially fewer Proposal Track teams via a Phase Authorization. DARPA will determine which teams will be granted Phase Authorization to proceed to the CFE phase based upon the satisfaction of milestones and the availability of funds, among other considerations. For the challenge as a whole, DARPA reserves the right not to proceed with subsequent phases if no technically viable project exists or funding is not available. DARPA's decision whether to authorize the CFE Phase will be provided in writing to each team upon the conclusion of the CQE Phase via contract modification.

### **3. ELIGIBILITY INFORMATION**

This section specifically refers to eligibility to propose to or receive an award under this BAA. Eligibility to participate in CGC events is outlined in the CGC Rules.

#### **3.1. Eligible Applicants**

All responsible sources capable of satisfying the Government's needs may submit a proposal that shall be considered by DARPA. 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.

##### **3.1.1. Federally Funded Research and Development Centers (FFRDCs)**

FFRDCs are subject to applicable direct competition limitations and cannot propose to this solicitation 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 official letterhead from their sponsoring organization citing the specific authority establishing the FFRDC's eligibility to propose to Government solicitations and compete with industry, and compliance with the terms and conditions in the associated FFRDC sponsor agreement.

This information is required for FFRDCs proposing as either prime contractors or subcontractors. At the present time, DARPA does not consider 15 USC § 3710a to be sufficient legal authority to show eligibility. For some entities, 10 USC § 2539b may be the appropriate statutory starting point however, specific supporting regulatory guidance, together with evidence of agency approval, will still be required to fully establish eligibility.

##### **3.1.2. Government Entities**

Government entities (e.g., Government laboratories, military educational institutions, etc.) are subject to applicable direct competition limitations and cannot propose to this solicitation in any capacity.

### **3.1.3. 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, the CGC Rules and other governing statutes applicable under the circumstances.

### **3.2. Procurement Integrity, Standards of Conduct, Ethical Considerations and Organizational Conflicts of Interest (COIs)**

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 COIs 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.

In accordance with FAR 9.5 and without prior approval or a waiver from the DARPA Director, a contractor cannot simultaneously provide scientific, engineering, and technical assistance (SETA) or similar support and be a technical performer. As part of the proposal submission, all members of a proposed team (prime 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 number(s). All facts relevant to the existence or potential existence of organizational COIs 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. If, in the sole opinion of the Government after full consideration of the circumstances, a proposal fails to fully disclose potential conflicts of interest and/or any identified conflict situation cannot be effectively mitigated, the proposal will be rejected without technical evaluation and withdrawn from further consideration for award.

If a prospective proposer believes a COI 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 [CGC-CompetitorBAA@darpa.mil](mailto:CGC-CompetitorBAA@darpa.mil) before preparing a proposal and mitigation plan.

### **3.3. Cost Sharing/Matching**

Cost sharing is not required; however, it will be carefully considered where there is an applicable statutory condition relating to the selected funding instrument (e.g., OTs under the authority of 10 USC § 2371).



### **3.4. Other Eligibility Requirements**

Due to the implicit conflict of interest involved in both architecting and competing in the Cyber Grand Challenge, no entity may compete in the CGC events and also take part in building the competition. As a result, any personnel funded by DARPA to support the Cyber Grand Challenge are not eligible to receive an award under DARPA-BAA-14-05 whether as a prime, subcontractor, or in any other capacity from an organizational to individual level. This group includes, but is not limited to, any party funded under DARPA-BAA-14-03 as well as any FFRDC or Government personnel whose scope of work covers CGC architecture development.

In the event that a proposer submits an otherwise selectable proposal to both DARPA-BAA-14-05 and DARPA-BAA-14-03, the decision as to which proposal to consider for award is at the discretion of the Government.

## **4. APPLICATION AND SUBMISSION INFORMATION**

### **4.1. Address to Request Application Package**

This document contains all information required to submit a response to this solicitation. No additional forms, kits, or other materials are needed except as referenced herein. No request for proposal (RFP) or additional solicitation regarding this opportunity will be issued, nor is additional information available except as provided at the Federal Business Opportunities website (<http://www.fbo.gov>) or referenced herein.

### **4.2. Content and Form of Application Submission**

#### **4.2.1. Proposal Content**

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 .pdf, .odx, .doc, .docx, .xls, or .xlsx formats. Submissions must be written in English.

Proposals not meeting the format prescribed herein may not be reviewed. Nonconforming proposals may be rejected without review. A proposal checklist is provided in Section 8.4.

#### **4.2.1.1. Volume 1: Technical and Management Proposal**

The maximum page count for Volume 1 is 15 pages, including all figures, tables and charts but not including the 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 is mandatory. Appendix B does not count against the page limit and is optional. Additional information not explicitly called for here 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:

##### **4.2.1.1.1. Cover Sheet:** Include the following information.

- Label: "Proposal: Volume 1"
- BAA number (DARPA-BAA-14-05)
- Proposal title
- Lead organization (prime contractor) name
- Type of business, selected from the following categories: Large Business, Small Disadvantaged Business, Other Small Business, HBCU, MI, Other Educational,

- or Other Nonprofit
- Technical point of contact (POC) including name, mailing address, telephone, and email
- Administrative POC including name, mailing address, telephone number, and email address
- Award instrument requested: FFP procurement contract or OT.<sup>7</sup>
- Place(s) and period(s) of performance
- Other team member (subcontractors and consultants) information (for each, include Technical POC name, organization, type of business, mailing address, telephone number, and email address)
- Proposal validity period (minimum 120 days)
- Data Universal Numbering System (DUNS) number<sup>8</sup>
- Taxpayer identification number<sup>9</sup>
- Commercial and Government Entity (CAGE) code<sup>10</sup>
- Proposer's reference number (if any)

#### **4.2.1.1.2. Table of Contents**

**4.2.1.1.3. Executive Summary:** Provide a synopsis of the proposed Cyber Reasoning System, including key technologies and competition strategy.

**4.2.1.1.4. Technical Plan:** Outline and address technical challenges inherent in automated Cyber competition and potential solutions for overcoming these problems. Demonstrate a deep understanding of the technical challenges and present a credible (even if risky) plan to compete successfully. Present a technical plan that aligns with the milestones/deliverables required by this BAA.

**4.2.1.1.5. Team Management Plan:** Identify a principal investigator (PI) for the project. Describe the areas of responsibility of each team member and their role within the CRS integration plan.

**4.2.1.1.6. Capabilities:** Describe team experience in relevant subject area(s), existing intellectual property, specialized facilities, and any Government-furnished

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<sup>7</sup> Information on award instruments can be found at [http://www.darpa.mil/Opportunities/Contract\\_Management/Contract\\_Management.aspx](http://www.darpa.mil/Opportunities/Contract_Management/Contract_Management.aspx).

<sup>8</sup> The DUNS number is used as the Government's contractor identification code for all procurement-related activities. Go to <http://fedgov.dnb.com/webform/index.jsp> to request a DUNS number (may take at least one business day). See Section 6.2.5. for further information.

<sup>9</sup> See <http://www.irs.gov/businesses/small/international/article/0,,id=96696,00.html> for information on requesting a TIN. Note, requests may take from 1 business day to 1 month depending on the method (online, fax, mail).

<sup>10</sup> The CAGE Code is an identification number used within the Government to support a variety of systems. See Section 6.2.5. for further information.

materials or information. Discuss team experience in cyber competitions, program analysis, and any closely related research areas and previous accomplishments. Resumes count against the proposal page count so proposers may wish to include them as links in Appendix B below.

**4.2.1.1.7. Statement of Work (SOW), Schedule and Milestones:** The SOW must provide a detailed task breakdown, scheduled to align with the milestones/deliverables specified herein.

**4.2.1.1.8. Appendix A:** This section is mandatory and must include all of the following components. If a particular subsection is not applicable, state “NONE.”

**4.2.1.1.8.1. Team Member Identification:** Provide a list of all team members (prime, subcontractor(s), and consultant(s)). Identify specifically whether any are a non-US organization or individual, or an FFRDC. Use the following format for this list:

Individual Name	Role (Prime, Subcontractor or Consultant)	Organization	Non-US?		FFRDC?
			Org.	Ind.	

**4.2.1.1.8.2. FFRDC Team Member Proof of Eligibility to Propose:** If none of the team member organizations (prime or subcontractor) are FFRDCs, state “NONE.”

If any of the team member organizations are FFRDCs, provide documentation (per Section 3.1.2) citing the specific authority that establishes the applicable team member’s eligibility 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.

**4.2.1.1.8.3. FFRDC Team Member Statement of Unique Capability:** If none of the team member organizations (prime or subcontractor) are FFRDCs, state “NONE.”

If any of the team member organizations are FFRDCs, provide a statement (per Section 3.1.2) that demonstrates the work to be performed by the FFRDC team member is not otherwise available from the private sector.

**4.2.1.1.8.4. Organizational Conflict of Interest Affirmations and Disclosure:** If none of the proposed team members is currently providing SETA or similar support as described in Section 3.2, state “NONE.”

If any of the proposed team members (individual or organization) is currently performing SETA or similar support, furnish the following information:

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

**4.2.1.1.8.5. Intellectual Property (IP):** If no IP restrictions are intended, state “NONE.” The Government will assume unlimited rights to all IP not explicitly identified as restricted in the proposal.

For all technical data or computer software that will be furnished to the Government with other than unlimited rights, provide (per Section 6.2.1) a list describing 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 following format should be used for these lists:

NONCOMMERCIAL				
Technical Data and/or 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)
(List)	(Narrative)	(List)	(List)	(List)

COMMERCIAL				
Technical Data and/or 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)
(List)	(Narrative)	(List)	(List)	(List)

**4.2.1.1.8.6. Representations Regarding Unpaid Delinquent Tax Liability or a**

**Felony Conviction under Any Federal Law:** Per Section 6.2.8, complete the following statements.

(a) The proposer represents that it is [ ] is not [ ] a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

(b) The proposer represents that it is [ ] is not [ ] a corporation that was convicted of a felony criminal violation under Federal law within the preceding 24 months.

**4.2.1.1.8.7. Cost Accounting Standards (CAS) Notices and Certification:** Per Section 6.2.9, any proposer who submits a proposal which, if accepted, will result in a CAS-compliant contract, must include a Disclosure Statement as required by 48 CFR 9903.202. The disclosure forms may be found at [http://www.whitehouse.gov/omb/procurement\\_casb](http://www.whitehouse.gov/omb/procurement_casb).

If this section is not applicable, state “NONE.”

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

If this section is not applicable, state “NONE.”

**4.2.1.1.9. Appendix B:** If desired, include a brief bibliography with links to relevant papers, reports, or resumes. Do not include technical papers. This section is optional, and the linked materials will not be evaluated as part of the proposal review.

#### **4.2.1.2. Volume 2 - Cost Proposal**

This volume is mandatory and must include all the listed components. No page limit is specified for this volume.

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

file must be included as a separate component of the full proposal package. Costs must be traceable between the prime and subcontractors/consultants, as well as between the cost proposal and the SOW.

Pre-award costs will not be reimbursed unless a pre-award cost agreement is negotiated prior to award.

**4.2.1.2.1. Cover Sheet:** Include the same information as the cover sheet for Volume 1, but with the label “Proposal: Volume 2.”

**4.2.1.2.2. Cost Summary:** Provide a single-page summary broken down by phase (CQE and CFE) listing cost totals for labor, materials, other direct charges (ODCs), indirect costs (overhead, fringe, general and administrative (G&A)), and any proposed profit/fee for the project. Include costs for each task in each phase of the project by prime and major subcontractors, total cost and proposed cost share, if applicable.

**4.2.1.2.3. Detailed Cost Information:** For each task, provide the following cost details in quarterly increments (3 months). Include supporting documentation describing the method used to estimate costs. Identify any cost sharing.

Proposers seeking a procurement contract award of \$700,000 or greater must provide “certified cost or pricing data” (as defined in FAR 2.101) unless an exception applies (see FAR 15.403.). Certified cost or pricing data is not required if requesting an OT.

**4.2.1.2.3.1. Direct Labor:** Provide labor categories, rates and hours. Justify rates by providing examples of equivalent rates for equivalent talent, past commercial or Government rates or Defense Contract Audit Agency approved rates.

**4.2.1.2.3.2. Materials:** Provide an itemized list of all proposed materials, equipment, and supplies for each year including quantities, unit prices, proposed vendors (if known), and the basis of estimate (e.g., quotes, prior purchases, catalog price lists, etc.). For proposed equipment/information technology (as defined in FAR 2.101) purchases equal to or greater than \$50,000, include a letter justifying the purchase. Include any requests for Government-furnished equipment or information with cost estimates (if applicable) and delivery dates.

**4.2.1.2.3.3. ODCs:** Provide an itemized breakout and explanation of all other anticipated direct costs.

**4.2.1.2.3.4. Indirect Costs:** Identify all indirect cost rates (such as fringe

benefits, labor overhead, material overhead, G&A, etc.) and the basis for each.

**4.2.1.2.3.5. Travel:** Provide a breakout of travel costs including the purpose and number of trips, origin and destination(s), duration, and travelers per trip.

**4.2.1.2.3.6. Subcontractor/Consultant Costs:** Provide above info for each proposed subcontractor/consultant. Subcontractor cost proposals must include interdivisional work transfer agreements or similar arrangements.

**4.2.1.2.3.7. Other Transactions:** Proposers requesting award of an 845 Other Transaction for Prototypes (845 OT) agreement must indicate whether they qualify as a nontraditional Defense contractor<sup>11</sup>, have teamed with a nontraditional Defense contractor, or are providing a one-third cost share for this effort. Provide information to support the claims.

**4.2.1.2.4. Subcontractor/Consultant Cost Proposals:** The proposer is responsible for the compilation and submission of all subcontractor/consultant cost proposals. Proposal submissions will not be considered complete until the Government has received all subcontractor/consultant cost proposals.

Proprietary subcontractor/consultant cost proposals may be included as part of Volume 2 or emailed separately to [CGC-CompetitorBAA@darpa.mil](mailto:CGC-CompetitorBAA@darpa.mil) (not uploaded to the submission site). Email messages must include "Subcontractor Cost Proposal" in the subject line and identify the principal investigator, prime proposer organization and proposal title in the body of the message.

## **4.2.2. Proprietary and Classified Information**

DARPA policy is to treat all submissions as source selection information (see FAR 2.101 and 3.104) and to disclose the contents only for the purpose of evaluation. Restrictive notices notwithstanding, during the evaluation process, submissions may be handled by 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.

### **4.2.2.1. Proprietary Information**

Proposers are responsible for clearly identifying proprietary information. Submissions containing proprietary information must have the cover page and each page containing such

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<sup>11</sup> For definitions and information on 845 OT agreements see [http://www.darpa.mil/Opportunities/Contract\\_Management/Other\\_Transactions\\_and\\_Technology\\_Investment\\_Agreements.aspx](http://www.darpa.mil/Opportunities/Contract_Management/Other_Transactions_and_Technology_Investment_Agreements.aspx) and "Other Transactions (OT) Guide For Prototype Projects," dated January 2001 (as amended) at <http://www.acq.osd.mil/dpap/Docs/otguide.doc>.



information clearly marked. Proprietary information must not be included in the proposed schedule, milestones, or SOW.

#### **4.2.2.2. Classified Information**

Because the CGC program emphasizes the idea of creating and leveraging open source technology, classified submissions (classified technical proposals or classified appendices to unclassified proposals) will not be accepted under this solicitation.

#### **4.3. Submission Dates and Times**

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 submissions. Note: these acknowledgements will not be sent until after the due date(s) as outlined herein.

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

The proposal package--full proposal (Volume 1 and 2), encryption password and, as applicable, proprietary subcontractor cost proposals--must be submitted per the instructions outlined herein and received by DARPA no later than January 14, 2014 at 1200 noon (ET). Submissions received after this time will not be reviewed.

#### **4.4. Funding Restrictions**

Not applicable.

#### **4.5. Other Submission Requirements**

Proposers must submit all parts of their submission package using the same method; submissions cannot be sent in part by one method and in part by another method nor should duplicate submissions be sent by multiple methods. Email submissions will not be accepted.

##### **4.5.1. Unclassified Submission Instructions**

DARPA/I2O will employ an electronic web-based upload submission system for UNCLASSIFIED proposals under this solicitation. For each proposal submission, proposers must complete an online cover sheet in the DARPA/I2O Solicitation Submission System (<https://www.i2osupport.csc.com/baa/index.asp>). Upon completion of the online cover sheet, a confirmation screen will appear which includes instructions on uploading the proposal. If a proposer intends to submit more than one proposal, a unique user ID and password must be used in creating each cover sheet or subsequent uploads will overwrite previous ones. Once each upload is complete, a confirmation will appear and should be printed for the proposer's

records.

All uploaded proposals must be zipped with a WinZip-compatible format and encrypted using 256-bit key AES encryption. Only one zipped/encrypted file will be accepted per submission. Submissions which are not zipped/encrypted will be rejected by DARPA. At the time of submission, an encryption password form (<https://www.i2osupport.csc.com/baa/password.doc>) must be completed and emailed to [CGC-CompetitorBAA@darpa.mil](mailto:CGC-CompetitorBAA@darpa.mil) with the word "PASSWORD" in the subject line of the email. Failure to provide the encryption password will result in the submission not being evaluated.

Since proposers may encounter heavy traffic on the web server, they should not wait until the day proposals are due to fill out a cover sheet and upload the submission. Technical support for web server/submission issues may be directed to [BAATechHelp@darpa.mil](mailto:BAATechHelp@darpa.mil). Technical support is typically available during regular business hours (9:00 AM – 5:00 PM ET, Monday – Friday).

#### **4.5.2. Classified Submission Instructions**

As stated above, classified submissions (classified technical proposal or classified appendices to unclassified proposals) will not be accepted under this solicitation.

## 5. APPLICATION REVIEW INFORMATION

### 5.1. Evaluation Criteria

Proposals will be evaluated using the following criteria listed in descending order of importance: Overall Scientific and Technical Merit; Potential Contribution and Relevance to the DARPA Mission; and Cost Realism.

- *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. The proposed approach describes a feasible plan to construct a competition-ready autonomous Cyber Reasoning System that addresses all the Areas of Excellence found in Table 1.
- *Potential Contribution and Relevance to the DARPA Mission:* The potential contributions of the proposed effort are relevant to DARPA's cyber research portfolio. The proposal includes a feasible plan to transition cyber reasoning based improvements to the software base utilized by the research, industrial, and/or operational military communities in such a way as to enhance U.S. cyber defense. Any proposed intellectual property restrictions are not anticipated to impact the Government's ability to transition the technology.
- *Cost Realism:* The proposed costs are based on realistic assumptions, reflect a sufficient understanding of the technical goals and objectives of the solicitation, and are consistent with the proposer's technical/management approach (to include the proposed SOW). The costs for the prime and subcontractors/consultants are substantiated by the details provided in the proposal (e.g., the type and number of labor hours proposed per task, the types and quantities of materials, equipment and fabrication costs, travel and any other applicable costs).

### 5.2. Review and Selection Process

DARPA policy is to ensure impartial, equitable, and comprehensive proposal evaluations. Selections under this solicitation will be made to proposers on the basis of the evaluation criteria listed in Section 5.1.

Qualified Government personnel will conduct a scientific and technical review of each conforming proposal 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 agreements/ requirements.

The review process identifies proposals that meet the established criteria and are, therefore, selectable for negotiation of funding awards by the Government. 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 4.

Failure to comply with the submission procedures may result in the submission not being evaluated. No submissions will be returned. After proposals have been evaluated and selections made, the original of each proposal will be retained at DARPA.

## **6. AWARD ADMINISTRATION**

### **6.1. Selection Notices**

After proposal evaluations are complete, proposers will be notified as to whether their proposal was deemed selectable as a result of the review process. Notification will be sent by email to the technical and administrative POCs identified on the proposal cover sheet. If a proposal has been selected for award negotiation, the Government will initiate those negotiations following the notification.

### **6.2. Administrative and National Policy Requirements**

#### **6.2.1. 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. 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 DFARS 227.

##### **6.2.1.1. Intellectual Property Representations**

All proposers must 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 must 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.

##### **6.2.1.2. Patents**

All proposers must include documentation proving ownership or possession of appropriate licensing rights to all patented inventions to be used for the proposed project. If a patent application has been filed for an invention, but it includes proprietary information and is not publicly available, a proposer must provide documentation that includes: 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).

##### **6.2.1.3. Procurement Contracts**

###### **6.2.1.3.1. Noncommercial Items (Technical Data and Computer Software)**

Proposers requesting a procurement contract must list all noncommercial technical data

and computer software that it plans to generate, develop, and/or deliver, in which the Government will acquire less than unlimited rights and to assert specific restrictions on those deliverables. In the event a proposer does not submit the list, the Government will assume that it has unlimited rights to all noncommercial technical data and computer software generated, developed, and/or delivered, 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, proposers should identify the data and software in question as subject to 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, at which time the Government will acquire unlimited rights unless the parties agree otherwise. 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, 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 solicitation. A template for complying with this request is provided in Section 4.2.1.1.8.5.

#### **6.2.1.3.2. Commercial Items (Technical Data and Computer Software)**

Proposers requesting a procurement contract must list all commercial technical data and commercial computer software that may be included in any noncommercial deliverables contemplated under the research project, and assert any applicable restrictions on the Government's use of such commercial technical data and/or computer software. In the event a proposer does 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 solicitation. A template for complying with this request is provided in Section 4.2.1.1.8.5.

#### **6.2.1.4. Other Types of Awards**

Proposers responding to this solicitation requesting an OT shall follow the applicable rules and regulations governing that award instrument including appropriately identifying 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. 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

solicitation. Proposers may use a format similar to the template provided in Section 4.2.1.1.8.5.

### **6.2.2. Export Control**

Per DFARS 225.7901, all procurement contracts and OTs (as deemed appropriate) resultant from this solicitation will include the DFARS Export Control clause (252.225-7048).

### **6.2.3. Employment Eligibility Verification**

Per FAR 22.1802, recipients of FAR-based procurement contracts must enroll as Federal contractors in E-verify<sup>12</sup> and use the system to verify employment eligibility of all employees assigned to the award. All resultant contracts from this solicitation will include the clause at FAR 52.222-54, "Employment Eligibility Verification." This clause will not be included in OTs.

### **6.2.4. Additional Requirements and Responsibilities relating to Alleged Crimes by or against Contractor Personnel in Iraq and Afghanistan**

In accordance with FAR 1.108(d), the following clause will be used in all contracts performed in Iraq or Afghanistan. Such contracts are defined as "contracts with the Department of Defense, a subcontract at any tier issued under such a contract, or a task order or delivery order at any tier issued under such contract, including a contract, subcontract, or task order or delivery order issued by another Government agency for the Department of Defense, if the contract, subcontract, or task order or delivery order involves work performed in Iraq or Afghanistan for a period longer than 14 days."

(a) The contractor shall report to the appropriate investigative authorities, identified in paragraph (c) below, any alleged offenses under—

- (1) The Uniform Code of Military Justice (10 USC § 47) applicable to contractors serving with or accompanying an armed force in the field during a declared war or a contingency operation; or
- (2) The Military Extraterritorial Jurisdiction Act (18 USC § 212).

(b) The contractor shall provide to all contractor personnel who will perform work on a contract in Iraq or Afghanistan, before beginning such work, information on the following:

- (1) How and where to report an alleged crime described in paragraph (a) of this clause.
- (2) Where to seek victim and witness protection and assistance available to contractor personnel in connection with an alleged offense described in paragraph (a) of this clause.

(c) The appropriate investigative authorities to which suspected crimes shall be reported include the following officials –

- (i) US Army Criminal Investigations Division at <http://www.cid.army.mil/reportacrime.html>
- (ii) Air Force Office of Special Investigations at

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<sup>12</sup><http://www.uscis.gov/e-verify>

<http://www.osi.af.mil/library/index.asp>

(iii) Navy Criminal Investigative Service at

<http://www.ncis.navy.mil/Pages/publicdefault.aspx>; or

(iv) To the command of any supported military element or the command of any base.

(d) Personnel seeking whistleblower protection from reprisals for reporting criminal acts shall seek guidance through the DoD Inspector General hotline at (800) 424-9098 or [www.dodig.mil/HOTLINE/index.html](http://www.dodig.mil/HOTLINE/index.html). Personnel seeking other forms of victim or witness protection should contact the nearest military law enforcement office.

#### **6.2.5. System for Award Management (SAM) Registration 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 SAM and have a valid DUNS number prior to submitting a proposal. All proposers must provide their DUNS number in each proposal they submit. All proposers must maintain an active SAM registration with current information at all times during which they have an active Federal award or proposal under consideration by DARPA. Information on SAM registration is available at <http://www.sam.gov>. Note that new registrations can take an average of 7-10 business days to process in SAM. SAM registration requires the following information:

- DUNS number
- TIN
- CAGE Code. If a proposer does not already have a CAGE code, one will be assigned during SAM registration.
- Electronic Funds Transfer information (e.g., proposer's bank account number, routing number, and bank phone or fax number).

#### **6.2.6. Reporting Executive Compensation and First-Tier Subcontract Awards**

Per FAR 4.1403, FAR-based procurement contracts valued at \$25,000 or more will include the clause at FAR 52.204-10, "Reporting Executive Compensation and First-Tier Subcontract Awards."

#### **6.2.7. Updates of Information Regarding Responsibility Matters**

Per FAR 9.104-7(c), all contracts valued at \$500,000 or more, where the contractor has current active Federal contracts and grants with total value greater than \$10,000,000, will include FAR clause 52.209-9, "Updates of Publicly Available Information Regarding Responsibility Matters."

#### **6.2.8. Representation by Corporations Regarding Unpaid Delinquent Tax Liability or a Felony Conviction under Any Federal Law**

In accordance with section 101(a)(3) of the Continuing Appropriations Resolution, 2013 (Pub. L.



112-175), sections 8112 and 8113 of Division C and sections 514 and 515 of Division E of the Consolidated and Further Continuing Appropriations Act, 2013 (Pub. L. 113-6), none of the funds made available by either Act for DoD use may be used to enter into a contract with any corporation that: (1) has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, unless the agency has considered suspension or debarment of the corporation and made a determination that this further action is not necessary to protect the interests of the Government; or (2) was convicted of a felony criminal violation under any Federal or State law within the preceding 24 months, where the awarding agency is aware of the conviction, unless the agency has considered suspension or debarment of the corporation and made a determination that this action is not necessary to protect the interests of the Government. Each proposer must complete and return the representations outlined in Section 4.2.1.1.8.6 with their proposal submission.

#### **6.2.9. Cost Accounting Standards (CAS) Notices and Certification**

Per FAR 52.230-2, any procurement contract in excess of \$700,000 resulting from this solicitation will be subject to the requirements of the Cost Accounting Standards Board (48 CFR 99), except those contracts which are exempt as specified in 48 CFR 9903.201-1. Any proposer who submits a proposal which, if accepted, will result in a CAS-compliant contract, must include a Disclosure Statement as required by 48 CFR 9903.202. The disclosure forms may be found at [http://www.whitehouse.gov/omb/procurement\\_casb](http://www.whitehouse.gov/omb/procurement_casb).

#### **6.2.10. Controlled Unclassified Information (CUI) on Non-DoD Information Systems**

CUI refers to unclassified information that does not meet the standard for National Security Classification but is pertinent to the national interests of the United States or to the important interests of entities outside the Federal Government and under law or policy requires (1) protection from unauthorized disclosure, (2) special handling safeguards, or (3) prescribed limits on exchange or dissemination. All non-DoD entities doing business with DARPA are expected to adhere to the following procedural safeguards, in addition to any other relevant Federal or DoD specific procedures, for submission of any proposals to DARPA and any potential business with DARPA:

- Do not process DARPA CUI on publicly available computers or post DARPA CUI to publicly available webpages or websites that have access limited only by domain or Internet protocol restriction.
- Ensure that all DARPA CUI is protected by a physical or electronic barrier when not under direct individual control of an authorized user and limit the transfer of DARPA CUI to subcontractors or teaming partners with a need to know and commitment to this level of protection.
- Ensure that DARPA CUI on mobile computing devices is identified and encrypted and all communications on mobile devices or through wireless connections are protected and

- encrypted.
- Overwrite media that has been used to process DARPA CUI before external release or disposal.

### **6.3. Reporting**

The number and types of technical and financial reports required under the contracted project will be specified in the award document, and will include, as a minimum, monthly financial status reports and a yearly status summary. The reports shall be prepared and submitted in accordance with the procedures contained in the award document.

## 7. AGENCY CONTACTS

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

- **Technical POC:** Michael Walker, Program Manager, DARPA/I2O
- **Email:** [CGC-CompetitorBAA@darpa.mil](mailto:CGC-CompetitorBAA@darpa.mil)
- **Mailing address:**  
DARPA I2O  
ATTN: DARPA-BAA-14-05  
675 North Randolph Street  
Arlington, VA 22203-2114
- **I2O Solicitation Website:**  
[http://www.darpa.mil/Opportunities/Solicitations/I2O\\_Solicitations.aspx](http://www.darpa.mil/Opportunities/Solicitations/I2O_Solicitations.aspx)
- **Cyber Grand Challenge Website:** [www.darpa.mil/cybergrandchallenge](http://www.darpa.mil/cybergrandchallenge)

## **8. OTHER INFORMATION**

### **8.1. Frequently Asked Questions (FAQs)**

Administrative, technical, and contractual questions should be sent via email to [CGC-CompetitorBAA@darpa.mil](mailto:CGC-CompetitorBAA@darpa.mil). All questions must include the name, email address, and the telephone number of a point of contact.

DARPA will attempt to answer questions in a timely manner; however, questions submitted within 7 days of closing may not be answered. If applicable, DARPA will post FAQs to [http://www.darpa.mil/Opportunities/Solicitations/I2O\\_Solicitations.aspx](http://www.darpa.mil/Opportunities/Solicitations/I2O_Solicitations.aspx).

### **8.2. Collaborative Efforts/Teaming**

It is DARPA's desire to receive comprehensive, quality responses to this solicitation. To facilitate strong, collaborative teaming efforts and business relationships, the CGC website ([www.darpa.mil/cybergrandchallenge](http://www.darpa.mil/cybergrandchallenge)) includes a teaming forum. Team communications, networking, and team formation are the sole responsibility of the participants. Neither DARPA nor the DoD endorses the information and organizations contained within the teaming forum.

### **8.3. Competitor Days**

DARPA anticipates holding two CGC Competitor Day sessions, one on the East Coast and one on the West Coast. Attendance at the Competitor Days is voluntary and is not required to propose to this solicitation. Following the second Competitor Day session, DARPA anticipates posting the briefing slides and videos on the CGC website. DARPA will not provide reimbursement for costs incurred in participating in the Competitor Days. All attendees will be required to present Government-issued photo identification upon entry to the events.

#### **8.3.1. East Coast Competitor Days**

The Competitor Days will be held on December 3 and 4, 2013 at the DARPA Conference Center, 675 N. Randolph Street, Arlington, VA, from 8:00 a.m. to 5:00 p.m. (Eastern). Due to the anticipated response from industry and academia, DARPA has scheduled two days for the event. The second day will be a repeat of the first day to accommodate registered attendees. Availability is on a first-come-first-served basis. All registrations will be for the December 3 session until capacity is reached; at that point, registrations will be for the December 4 session. Registration confirmations will be emailed to the address provided and will include a confirmation number and specify which day to attend.

Registration for the Competitor Days must be completed online at <http://www.sa-meetings.com/darpacgcompetitorday> no later than 12:00 noon (Eastern) on November 27, 2013. Non-US citizens must submit a DARPA Form 60 "Foreign National Visit Request" no later than 5:00 PM (Eastern) on November 26, 2013. DARPA Form 60s may be obtained at the registration site and should be faxed to 703-797-4505.

### 8.3.2. West Coast Competitor Days

The West Coast Competitor Day is currently scheduled for December 9, 2013 at the Westin St. Francis, 335 Powell Street, San Francisco, CA, from 8:00 a.m. to 5:00 p.m. (Pacific). Availability is on a first-come-first-served basis.

Registration for the Competitor Day must be completed online at <http://www.sam-meetings.com/darpacgcompetitordaywest> no later than 12:00 noon (Eastern) on December 6, 2013. Registration confirmations will be emailed to the address provided and will include a confirmation number. Non-US citizens must submit a DARPA Form 60 "Foreign National Visit Request" no later than 12:00 noon (Eastern) on December 4, 2013. DARPA Form 60s may be obtained at the registration site and should be faxed to 703-807-1792.

### 8.4. Submission Checklist

The following items apply prior to proposal submission. Note, some items may require at least one week lead time.

✓	Item	BAA Section	Applicability	Comment
	Obtain DUNS number	6.2.5	Required of all proposers	<a href="http://fedgov.dnb.com/webform/index.jsp">http://fedgov.dnb.com/webform/index.jsp</a>
	Enroll in the System for Award Management (SAM)	6.2.5	Required of all proposers	<a href="http://www.sam.gov">www.sam.gov</a> The SAM combines Federal procurement systems and the Catalog of Federal Domestic Assistance into one new system. SAM currently includes the functionality from the following systems: * Central Contractor Registry (CCR) * Federal Agency Registration (Fedreg) * Online Representations and Certifications Application (ORCA) * Excluded Parties List System (EPLS)
	Obtain Taxpayer Identification Number (TIN)	6.2.5	Required of all proposers	<a href="http://www.irs.gov/businesses/small/international/article/0,,id=96696,00.html">http://www.irs.gov/businesses/small/international/article/0,,id=96696,00.html</a> A TIN is used by the Internal Revenue Service in the administration of tax laws.
	Obtain CAGE code	6.2.5	Required of all proposers	<a href="http://www.dlis.dla.mil/CAGESearch/cage_faq.asp">http://www.dlis.dla.mil/CAGESearch/cage_faq.asp</a> A CAGE Code identifies companies doing or wishing to do business with the Federal Government.
	Enroll in E-Verify	6.2.3	Applies to FAR-based contracts, not to OTs	<a href="http://www.uscis.gov/e-verify">http://www.uscis.gov/e-verify</a> E-Verify is a web-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	6.2.5	Required of all proposers	<a href="http://www.sam.gov">http://www.sam.gov</a> Federal provisions require entities to represent/certify to a variety of statements ranging from environmental rules compliance to entity size representation.
	Ensure eligibility of all team members	3	Required of all proposers (primes and subcontractors)	Verify eligibility, as applicable, for in accordance with requirements outlined in Section 3.

The following items apply as part of the submission package:

✓	Item	BAA Section	Applicability	Comment
	Encryption password	4.5.1	Required of all proposers	Email to <a href="mailto:CGC-CompetitorBAA@darpa.mil">CGC-CompetitorBAA@darpa.mil</a>
	Volume 1 (Technical and Management)	4.2.1.1	Required of all proposers	Conform to stated page limits.
	Appendix A	4.2.1.1.8	Required of all proposers	<ul style="list-style-type: none"> <li>-Team member identification</li> <li>- FFRDC team member proof of eligibility</li> <li>- Organizational conflict of interest affirmations</li> <li>- Intellectual property assertions</li> <li>- Subcontractor plan, if applicable</li> <li>- Unpaid delinquent tax liability/felony conviction representations</li> <li>-CASB disclosure, if applicable.</li> </ul>
	Appendix B	4.2.1.1.9	Optional	May include links to relevant papers, reports or resumes
	Volume 2 (Cost)	4.2.1.2	Required of all proposers	<ul style="list-style-type: none"> <li>- Cover Sheet</li> <li>- Cost summary</li> <li>- Detailed cost information including justifications for direct labor, indirect costs/rates, materials/equipment, subcontractors/consultants, travel, ODCs</li> <li>- Cost spreadsheet file (.xls or equivalent format)</li> <li>- If applicable, list of milestones for 845 OTs</li> <li>- Subcontractor cost proposals</li> <li>- Itemized list of material and equipment items to be purchased with vendor quotes or engineering estimates for material and equipment more than \$50,000</li> <li>- Travel purpose, departure/arrival destinations, and sample airfare</li> </ul>