Cyber Grand Challenge

Master Schedule

April 15, 2015

Defense Advanced Research Projects Agency
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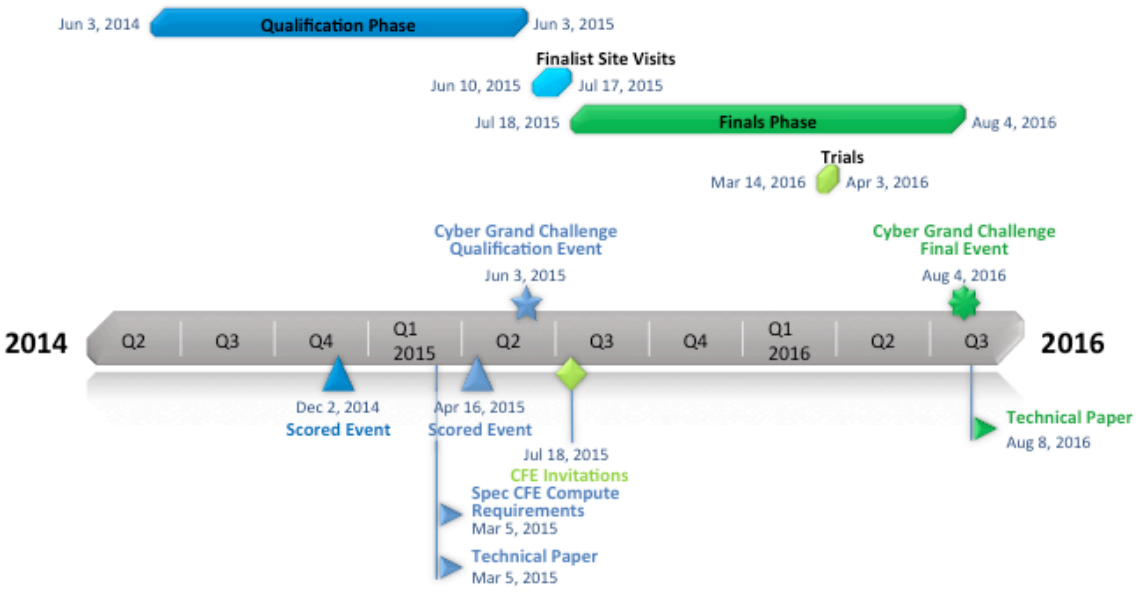
CYBER

GRAND_CHALLENGE

Document Change Summary

Section	Description	Date
	Initial Publication	June 3, 2014
Scored Events and Cyber Grand Challenge Final Event	Rescheduled second scored event for April 16, 2015 and CFE until August 4, 2016	June 20, 2014
Scored Events	Confirmed first scored event is December 2, 2014	October 2, 2014
Diagram	Update CFE invitations diagram marker to be consistent with master schedule	April 15, 2015



Qualification Phase

Open Track and Proposal Track competitors all participate in the qualification phase of CGC. This qualification phase is designed to identify the most effective automated systems that locate and mitigate security flaws. For more information reference CGC Rules §3.1

Scored Events

The qualification phase will include two scored events that will be similar in format to the Cyber Grand Challenge Qualification Event (CQE). Participation in these Scored Events is optional and success in these events will not be evaluated as part of CGC scoring. Each Scored Event is an opportunity for competitors to gain an understanding of the format, procedure, and scoring mechanism to be used during the CQE. These events are scheduled for December 2, 2014 and tentatively April 16, 2015. For more information reference CGC Rules §3.1.1

Specify CFE Compute Requirements

Cyber Grand Challenge Final Event (CFE) will take place at a physical location to be specified by DARPA in 2016. Competitor systems must be physically present at the CFE Compute Location in order to interface directly with the competition framework. The teams must specify their anticipated CFE form factor, power and cooling requirements by March 5, 2015. DARPA will approve or amend these plans by August 2015.

Technical Paper

To receive an invitation to the CFE, a team must submit an acceptable CQE technical paper to DARPA describing their Cyber Reasoning System (CRS). CQE technical papers will be evaluated and approved according to the CGC Technical Paper Guidelines found on the CGC website: www.darpa.mil/cybergrandchallenge. DARPA

will review each technical paper and communicate acceptance of papers to each team leader. CQE Technical Papers are due March 5, 2015. For more information reference CGC Rules §3.1.3.1 and the Technical Paper Guidelines

Cyber Grand Challenge Qualification Event

Finalists for the CFE will be determined at the CQE. The CQE is tentatively scheduled for June 3, 2015. During the CQE, all Proposal Track and Open Track competitors will receive an identical corpus of Challenge Binaries (CBs): insecure software which must be analyzed and secured. The goal of CQE is to use an autonomous system to locate and mitigate flaws in the CBs and return a corpus of CB data to DARPA for scoring. For more information reference CGC Rules §3.1.2 and the CQE Procedures document to be released in October 2014.

Finalist Site Visits

After CQE performance, eligible teams must demonstrate the function of their system during a team site visit conforming to the CGC Site Visit Procedures found on the CGC website: www.darpa.mil/cybergrandchallenge. DARPA will travel to an acceptable location (within the United States) identified by each eligible team. Each team leader and CRS must be present at the site visit. DARPA will bring a corpus of CB software to the demonstration for analysis by the CRS. DARPA will assess the CRS using the CQE AoE listed in the CGC rules. During the site visit, teams should be prepared to demonstrate the CRS to the satisfaction of the DARPA teams. Site visits will be schedule following CQE to be between June 10th, 2015 and July 17th, 2015. For more information reference CGC Rules §3.1.3.2 and the Site Visit Procedures.

CFE Invitations

Using the published scoring methodology, DARPA will score and rank teams from the Proposal Track and Open Tracks. Based on this scoring, DARPA will invite some teams to the CFE as finalists. Finalists invited by DARPA will:

- Have submitted a CQE Technical Paper accepted by DARPA,
- Achieve a top ranking, non-zero CQE score, and
- Have successfully demonstrated their system to DARPA during a site visit

CFE Finalists will receive an invitation from DARPA no later than July 18th, 2015. For more information reference CGC Rules §3.1.4

Finals Phase

The finalists invited following CQE participate in the finals phase of CGC. This phase culminates in the Cyber Grand Challenge Final Event (CFE) to determine the CGC Champion. For more information reference CGC Rules §3.2

CFE Trials

To demonstrate readiness for the CFE, each finalist CRS will be required to pass a series of three Trials as specified in the CGC Rules document found on the CGC website: www.darpa.mil/cybergrandchallenge. These Trials are intended to

demonstrate the field-worthiness of each finalist CRS and present an opportunity to debug and refine interactions with the Competition Framework prior to the CFE competition. Over a three-week period, DARPA will provide each finalist with access to the Competition Framework to allow a demonstration match against a simulated opponent. These trials will take place between March 14th, 2016 and April 3rd, 2016. For more information reference CGC Rules §3.2.1

Cyber Grand Challenge Final Event

During the CFE, each finalist will field a CRS interfacing with the CGC Competition Framework in order to determine the CGC Champion. The CFE is scheduled for August 4, 2016 in Las Vegas, NV. DARPA will publish the CFE Venue and Compute Location once they are finalized. For more information reference CGC Rules §3.2.2 and §3.2.3

Technical Paper

All CFE participants must submit a CFE Technical Paper to DARPA describing their CRS in its final competition state, as well as lesson learned during CFE. CFE technical papers will be evaluated and approved according to the CGC Technical Paper Guidelines. DARPA will review each technical paper and communicate acceptance of papers to each performer. CFE Technical Papers are due within three weeks of the conclusion of CFE. For more information reference CGC Rules §3.2.4 and the CGC Technical Paper Guidelines.

Glossary

CB	See Challenge Binary
CFE	CGC Final Event
CGC	Cyber Grand Challenge
Challenge Binary	A vulnerable network service that accepts remote network connections
CQE	CGC Qualification Event
CRS	See Cyber Reasoning System
Cyber Reasoning System	Unmanned systems that autonomously reason about novel program flaws, prove the existence of flaws in networked applications, and formulate effective defenses.