

CRDF GLOBAL
REQUEST FOR PROPOSAL RFP-05-UA-2021

U.S. University contractor support in preparation of CTF competition for university students in Moldova and Balkans (Virtual, with Final Competition Hosted at U.S. University)

Introduction

CRDF Global is seeking a university partner in the U.S. to assist with the design and implementation of a set of Capture the Flag (CTF) competitions for a target audience technical university students in Moldova and Balkan countries (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, Serbia). The contractor shall develop and manage each competition separately, develop CTF competitions' evaluation tools, registration tool, requirements for technical set up and organizational matters.

Notional schedule of Key Activities

- *August, 2021*
 - *Scenario and content design for CTF 1 and CTF 2*
 - *Develop technical environment for CTF 1 and CTF 2 competitions*
- *September 18-19, 2021*
 - *Manage Virtual CTF competition # 1*
- *October 7-8 2021*
 - *Manage Virtual CTF competition # 2*
- *September-October, 2021*
 - *Scenario and content design for Virtual Local CTF Final in Moldova (CTF competition # 3)*
 - *Develop technical environment for Virtual Local CTF Final in Moldova*
- *September-October, 2021*
 - *Scenario and content design for Virtual Local CTF Finals in Balkan region (CTF competition # 4)*
 - *Develop technical environment for Virtual Local CTF Finals in Balkan region*
- *November 17 and 19, 2021*
 - *Manage Virtual Local CTF Finals in Moldova and Balkans*
 - *Select winners, U.S. visa applications for winners submitted*
- *December 2021-February 2022*
 - *Scenario and content design for CTF competition # 5 (U.S.)*
 - *Develop technical environment for CTF competition # 5*
- *February - March 2022*
 - *Local Final CTF winner arrive for CTF Final, hosted at U.S. University partner*

Event	Modality	Audience	# participants	Location
CTF 1	Virtual, synchronous	Technical Students, Moldova	20-30	Web-based
CTF 2	Virtual synchronous	Technical Students, Balkans	30-40	Web-based
Local CTF Final	Virtual synchronous	Technical Students, Moldova	Up to 20	Web-based
Local CTF Final	Virtual synchronous	Technical Students, Balkans	Up to 30	Web-based
CTF U.S.	In-person	Technical Students, Balkans and Moldova	Up to 6 (Moldova) Up to 12 (Balkans)	Hosted at U.S. University

Scope of Work

The contractor will work in cooperation with CRDF Global and will complete tasks as specified below. All tasks will be implemented according to the notional schedule of key activities.

Task One: Develop scenario and content for four separate web-based CTF competitions in Moldova and Balkan region

#	Description
1.1	Design of the set of four separate CTF scenarios (CTF1, CTF 2, Local CTF Final Moldova, Local CTF Final Balkans) incorporating various cybersecurity topics, namely forensics, network security and incident response.
1.2	Development of content of the set of four separate CTF scenarios.
1.3	Development of the scoring and assessment system for the set of four separate CTF scenarios.

Task One Deliverables:

#	Description	Delivery Date
Deliverables Package 1	Status report and materials on completed sub-tasks 1.1 – 1.3	Upon completion and approval by CRDF

Task Two: Develop technical environment for 2021 web-based CTF competition in Moldova (CTF1)

#	Task Description
2.1	Perform technical preparation for online CTF 1 competition an such as:
2.1.1	CTF environment technical specification and description development. Layout development..
2.1.2	General CTF environment configuration and maintenance. Layout configuration.

2.2.3	CTF technical environment testing.
2.2.4	Rating system installation, maintenance, and configuration

Task Two Deliverables:

#	Description	Delivery Date
Deliverables Package 2	Status report and materials on completed sub-tasks 2.1 – 2.2.4	Upon completion and approval by CRDF

Task Three: Manage the 2021 web-based CTF competition in Moldova

#	Task Description
3.1	Supervising the CTF virtual infrastructure with network implementation. Working with the software/hardware equipment. General network and VPN configuration
3.2	Supervising the External/Internal networks tunnel. Data flow control. Configuration maintenance.
3.3	Supervising the scoring system controls.

Task Three Deliverables:

#	Description	Delivery Date
Deliverables Package 3	Status report and materials on completed subtasks 3.1 – 3.3	Upon completion and approval by CRDF

Task Four: Supervising and mentoring participants of 2021 web-based CTF competition in Moldova

#	Task Description
4.1	Briefing and instructing the participants with event agenda and CTF competition flow
4.2	Mentoring, if needed, the participants during CTF competition.

Task Four Deliverables:

#	Description	Delivery Date
Deliverables Package 4	Status report and materials on completed subtasks 4.1 – 4.2	Upon completion of each of 2 planned CTF in Balkan region

Task Five: Develop technical environment for 2021 web-based CTF competition in Balkan region (CTF 2)

#	Task Description
5.1	Perform technical preparation for online CTF 2 competition an such as:
5.1.1	CTF environment technical specification and description development. Layout development
5.1.2	General CTF environment configuration and maintenance. Layout configuration
5.1.3	CTF technical environment testing
5.1.4	Rating system installation, maintenance, and configuration.

Task Five Deliverables:

#	Description	Delivery Date
Deliverables Package 5	Status report and materials on completed subtasks 5.1 – 5.4	Upon completion and approval by CRDF

Task Six: Managing the web-based 2021 CTF competition in Balkan region

#	Task Description
6.1	Supervising the CTF virtual infrastructure with network implementation. Working with the software/hardware equipment. General network and VPN configuration
6.2	Supervising the External/Internal networks tunnel. Data flow control. Configuration maintenance.
6.3	Supervising the scoring system controls.

Task Six Deliverables:

#	Description	Delivery Date
Deliverables Package 6	Status report and materials on completed subtasks 6.1 – 6.3	Upon completion and approval by CRDF

Task Seven: Supervising and mentoring participants of web-based 2021 CTF competition in Balkan region

#	Task Description
7.1	Briefing and instructing the participants with event agenda and CTF competitions flow
7.2	Developing and teaching the theoretical technical preparation content in a form of the 4 hours workshop, to prepare participants to the competitions,
7.3	Mentoring, if needed the participants during the CTF competitions,

Task Seven Deliverables:

#	Description	Delivery Date
Deliverables Package 7	Status report and materials on completed subtasks 7.1 – 7.3	Upon completion and approval by CRDF

Task Eight: Develop technical environment for Local Final web-based CTF competition in Moldova

#	Task Description
8.1	Perform technical preparation for online Local Final CTF competition an such as:
8.1.1	CTF environment technical specification and description development. Layout development
8.1.2	General CTF environment configuration and maintenance. Layout configuration
8.1.3	CTF technical environment testing
8.1.4	Rating system installation, maintenance, and configuration.

Task Eight Deliverables:

#	Description	Delivery Date
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Deliverables Package 8	Status report and materials on completed subtasks 8.1 – 8.4	Upon completion and approval by CRDF
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Task Nine: Managing the Local Final web-based CTF competition in Moldova

#	Task Description
9.1	Supervising the CTF virtual infrastructure with network implementation. Working with the software/hardware equipment. General network and VPN configuration
9.2	Supervising the External/Internal networks tunnel. Data flow control. Configuration maintenance.
9.3	Supervising the scoring system controls.

Task Nine Deliverables:

#	Description	Delivery Date
Deliverables Package 9	Status report and materials on completed subtasks 9.1 – 9.3	Upon completion and approval by CRDF

Task Ten: Supervising and mentoring participants of Local Final web-based CTF competition in Moldova

#	Task Description
10.1	Briefing and instructing the participants with event agenda and CTF competitions flow
10.2	Developing and teaching the theoretical technical preparation content in a form of the 4 hours workshop, to prepare participants to the competition
10.3	Mentoring, if needed the participants during the CTF competition

Task Ten Deliverables:

#	Description	Delivery Date
Deliverables Package 10	Status report and materials on completed subtasks 10.1 – 10.3	Upon completion and approval by CRDF

Task Eleven: Develop technical environment for Local Final web-based CTF competition in Balkan region.

#	Task Description
11.1	Perform technical preparation for Local Final web-based CTF competition an such as:
11.1.1	CTF environment technical specification and description development. Layout development
11.1.2	General CTF environment configuration and maintenance. Layout configuration
11.1.3	CTF technical environment testing
11.1.4	Rating system installation, maintenance, and configuration.

Task Eleven Deliverables:

#	Description	Delivery Date
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Deliverables Package 11	Status report and materials on completed subtasks 11.1 – 11.1.4	Upon completion and approval by CRDF
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Task Twelve: Managing the Local Final web-based CTF competition in Balkan region

#	Task Description
12.1	Supervising the CTF virtual infrastructure with network implementation. Working with the software/hardware equipment. General network and VPN configuration
12.2	Supervising the External/Internal networks tunnel. Data flow control. Configuration maintenance.
12.3	Supervising the scoring system controls.

Task Twelve Deliverables:

#	Description	Delivery Date
Deliverables Package 12	Status report and materials on completed subtasks 12.1 – 12.3	Upon completion and approval by CRDF

Task Thirteen: Supervising and mentoring participants of Local Final web-based CTF competition in Balkan region

#	Task Description
13.1	Briefing and instructing the participants with event agenda and CTF competitions flow.
13.2	Developing and teaching the theoretical technical preparation content in a form of the 4 hours workshop, to prepare participants to the competitions.
13.3	Mentoring, if needed the participants during the CTF competitions.

Task Thirteen Deliverables:

#	Description	Delivery Date
Deliverables Package 13	Status report and materials on completed subtasks 13.1 – 13.3	Upon completion and approval by CRDF

Task Fourteen: Arrange, host study visit and CTF competition at US partner facilities for the final CTF winners

#	Task Description
14.1	Provide invitation letters for participants for U.S. visa purposes.
14.2	Arrange study visit to the U.S. partner facilities (depending on U.S. partner capacity, minimum three cybersecurity research-related facilities), which should include a tour of teaching and research facilities related to cybersecurity discipline and discussions with cybersecurity leadership. Study tour should cover three full working days.
14.2.1	Arrange CTF competition for the final CTF winners, performing tasks as follows:
14.2.2	CTF environment technical specification and description development. Layout development.
14.2.3	General CTF environment configuration and maintenance. Layout configuration.
14.2.4	CTF technical environment testing.

14.2.5	Identify, recruit, and engage the team of locally-enrolled students to participate in CTF.
14.3	Manage the CTF competition
14.3.1	Supervise the CTF virtual infrastructure with network implementation. Working with the software/hardware equipment. General network and VPN configuration.
14.3.2	Supervise the external/internal networks tunnel. Data flow control. Configuration maintenance.
14.3.3	Supervise the scoring system controls.
14.4	Supervise and mentor participants of CTF competition.
14.4.1	Briefing and instructing the participants with event agenda and CTF competitions flow.
14.4.2	Developing and teaching the theoretical technical preparation content in a form of the workshop, to prepare participants to the competition.
14.4.3	Mentoring, if needed the participants during the CTF competition.
14.4.4	Winners' selection based on scores gained.

Task Fourteen Deliverables:

#	Description	Delivery Date
Deliverables Package 14	Status report and materials on completed subtasks 14.1 – 14.4.4	Upon completion and approval by CRDF

Task Fifteen (optional): Housing, meal plan, ground transportation of the participants of the study tour (payment based on the actual number of arrivals)

#	Task Description
15.1	Provide ground transportation for up to 18 participants (fixed pricing per participant) from/to airport to university.
15.2	Provide accommodation for five nights for up to 18 participants (fixed pricing per participant).
15.3	Provide meal plan (dinner on first night only; breakfast, lunch and dinner on four days) for up to 18 participants (fixed pricing per participant) for the period of stay in the USA.

Task Fifteen Deliverables:

#	Description	Delivery Date
Deliverables Package 15	Status report and invoices per completed subtasks 15.1 – 15.3	Upon completion and approval by CRDF

Contractor Requirements:

- Accredited U.S. University.

- University applicant should have an established center dedicated to research and development in cybersecurity, information security, or other closely-related field and should be broadly recognized as a leader in this area.
- Proposals which demonstrate experience in implementing cybersecurity-themed competitions will be scored higher than proposals which do not demonstrate such experience.
- Proposals which include optional tasks delivery will be scored higher than proposals which do not contain optional tasks.

Proposal Requirements:

Each proposal must include:

- Statement of Interest and Technical Capabilities not to exceed 10 pages.
- Detailed cost proposal per task and per person (if applicable)
- CV(s) of key personnel
- Detailed description of similar prior assignments conducted.

Timetable:

Tuesday, March 23: RPF Released

Tuesday, April 6: RFP Questions due

Friday, April 9: RFP Questions & Answers released

Tuesday, April 20: RFP submissions due

Friday, April 23: Contractor selected

Tuesday, April 27 – Tuesday May 4: Contract start date

Contractor Selection Criteria:

CRDF Global will select the contractor that provides the best value in terms of technical expertise, management approach, clarity of proposal and, and overall price. The contractor should have proven experience providing similar solutioning to all tasks.

Submission:

Proposals should be submitted to akurylenko@crdfglobal.org, no later than **Friday COB, April 16, 2021**.

Proposals should be submitted as electronic documents in PDF, Word or Excel format.

Background:

Founded in 1995, CRDF Global is an independent nonprofit organization that promotes international scientific and technical collaboration through grants, technical resources, training, and services. Based in Arlington, Virginia with offices in the Eurasia and MENA regions, CRDF Global works with more than 40 countries in the Middle East, North Africa, Eurasia, and Asia.

CRDF Global implements a portfolio of cybersecurity capacity building programs in Eastern Europe under a U.S. Department of State-funded award. This project consists of multiple interrelated components aimed at strengthening cybersecurity capabilities and building sustainable local knowledge to counter and withstand cyber attacks.

More information is available at www.crdfglobal.org.

Solicitation Terms & Conditions:

Right to Select Suppliers. CRDF Global reserves the right to negotiate with and select all qualified suppliers at its own discretion and is not obligated to inform suppliers of the methods used in the selection process. CRDF Global reserves the right to dismiss any and/or all suppliers from the bid process and reject any and/or all proposals.

Obligation. This RFP does not bind nor obligate CRDF Global in any way. CRDF Global makes no representation, either expressed or implied, that it will accept or approve in whole or in part any proposal submitted in response to this RFP. CRDF Global may reward, in whole or in part, the proposal at its sole discretion.

Binding Period. Following the due date of submission of this Proposal, the pricing included in this RFP shall be binding upon the supplier for the duration of the contract.

Hold Harmless. By submitting a response to the RFP, bidder agrees that CRDF Global has sole discretion to select any and/or all suppliers. During or following the conclusion of this process, bidders waive their rights to damages whatsoever attributable to the selection process, materials provided, supplier selection, or any communication associated with the RFP process and supplier selection.

Transfer to Final Contract. The terms and conditions of the RFP, including the specifications and the completed proposal, will become at CRDF Global's sole discretion, part of the final contract (the "Agreement") between CRDF Global and the selected bidder. In the event that responses to the terms and conditions will materially impair a bidder's ability to respond to the RFP, bidder should notify CRDF Global in writing of the impairment. If bidder fails to object to any condition(s) incorporated herein, it shall mean that bidder agrees with, and will comply with the conditions set forth herein.

Exceptions. Any exceptions to the terms and conditions or any additions, which bidder may wish to include in the RFP, should be made in writing and included in the form of an addendum to the applicable Section in the RFP.

CRDF Global Proprietary Information. Supplier agrees that all non-public information contained in this document and communicated verbally in reference to this RFP by CRDF Global shall be received for the sole discretion and purpose of enabling the supplier to submit an accurate response to this RFP. The information contained in this RFP and disclosed during the course of

negotiations and communications are proprietary in nature and under no circumstances to be disclosed to a third party without prior written consent from CRDF Global.

Supplier Proprietary Information. Information contained in the response to this RFP will be considered proprietary in nature if marked "confidential" or "proprietary". Such marked documents will not be disclosed to third parties outside CRDF Global with the exception of retained consultants under contractual confidentiality agreements.