Universal Acceptance

Work Item: Showcasing UA Readiness and Conducting Bug Reporting with Programming Languages

Ver.: 2021-xx-xx

Purpose

This work aims to develop, test and publish functional minimal running prototypes to demonstrate UA readiness on the prioritized technology stacks. The purpose is to demonstrate UA readiness to developers to persuade them to adopt this practice.

- Group proposing the work item: UA Technology WG
- Reference to the Action plan: FY22
- Reference to work item(s): T2

Description of Work

A. The work is to develop minimal viable products (MVPs) for the following programming languages using the libraries specified, as example code and best practice for developers to follow in their own work. The MVP will demonstrate how to get UA-compliant results from these libraries (see UASG018A) where possible, and demonstrate workarounds to achieve UA compliance where necessary.

   Software code is to be developed for each programming language, along with each of the corresponding libraries. The sample code should support complete UA readiness for domain names (with new and longer ASCII top-level domains and internationalized domain names (IDNs)) and internationalized email addresses. The code samples should address UA readiness based on the UA Readiness Framework (UASG026) and test cases available (UASG004 and UASG004A).

   1. Java
      a. COMMONS-VALIDATOR
      b. GAUVA
      c. ICU
      d. JAKARTAMAIL
   2. Java Script
      a. NODEMAILER
      b. IDNA-UTS46
      c. VALIDATOR
   3. Python3
      a. idna (https://pypi.org/project/idna/)
      b. email-validator (https://pypi.org/project/email-validator/)
      c. smtplib (https://docs.python.org/3/library/smtplib.html)

For libraries which make UA-compliance “very hard” to achieve, the challenges should be documented.

B. For the non-UA-compliant libraries, bug reports should be filed using the examples developed to address their UA readiness shortcomings.

Deliverables

TBD - Provide an itemized list of the complete set of deliverables expected from this work item. A tentative timeline for deliverables can also be optionally provided. This will be used as part of the contract.

Timeline

TBD - What should be the preferred starting date and ending date of the work item. This period should be within a financial year. This will be used as part of the contract.

- *Tentative start date:*
- *Tentative end date:*

History (if any)

This work develops on top of existing work on finding gaps in programming languages (UASG018A).

We have developed a set of domain names, URLs, and email addresses in a variety of scripts, suitable for testing. They have live web servers and email responders as appropriate. (UASG004, UASG004A)

Proposal Submission

The proposal should be submitted to: UAProgram@icann.org before the submission due date. The proposal should include the relevant expertise and experience of the contractor, the proposed methodology for conducting the study, an overall plan of work and the intermediate and final deliverables. The proposal should also include the total project cost.

Conflict of Interest

To help avoid any perceived or actual conflict of interest (COI), UASG leaders, UASG Ambassadors, members holding working group’s leadership positions in the UASG, and any organization(s) affiliated with individuals in these UASG roles, are prohibited from participating in the SOW. In addition, ICANN org COI applies.

References and Resources

The contractor should review the UASG published documents inventory available in the UASG website: www.uasg.tech.