



Work Item: Measuring Universal Acceptance (UA) Readiness of Popular Ecommerce Platforms

Ver.: 2024-09-19

Purpose

This work will test the UA-readiness of the Ecommerce platforms that are commonly used to build an online store or marketplace. (A "marketplace" is a website which lets individual vendors list individual products for sale within the marketplace, but the branding of the overall marketplace website is set by the marketplace operator. An "ecommerce platform" is a set of tools for developing an online store. An "online store" is a specialized marketplace for products from just one vendor.)

The aim of this work and related requirements are two-fold. The selected vendor must first develop a testing methodology to assess the Universal Acceptance in ecommerce platforms. The applicant must submit validation of their proposed solution on [three distinctly different ecommerce platforms](#) in a test environment. Proposed vendors must also demonstrate towards testing the UA-readiness of popular ecommerce platforms.

The Universal Acceptance Steering Group's (UASG's) Measurement Working Group is submitting this statement of work in accordance with its [FY24 action plan](#), specifically work item M9.

Description of Work

1. The vendor is required to provide a test plan and test cases to demonstrate the UA-readiness of [three ecommerce platforms](#). Areas of focus in UA testing will include, but are not limited to, the consistent input, validation, processing, storing, and display of all domain names and email addresses.

The plan shall categorize the test cases into two parts: 1) those needed by store owners for setting up an online store, and 2) those needed by end-users who visit the online store.

The vendor may also want to identify areas beyond the following requirements.

In general, UA-readiness of ecommerce platforms mean that:

- a. Work when hosted on a server with an Internationalized Domain Name (IDN).
- b. Generate a URL "slug" with non-ASCII characters after "/" when the item title has non-ASCII characters.



- c. Perform linkification of domain names and email addresses consistently.
 - d. Accept user registrations with internationalized email addresses and authenticate new accounts.
 - e. Allow logging into an existing account with all types of email addresses.
 - f. Send and receive emails to and from internationalized email addresses.
 - g. Allow email communication with internationalized email addresses, and linkification of IDN URLs through the contact web forms and chat tools.
 - h. Display domain names and email addresses properly in preview mode as well as actual deployment.
 - i. Work smoothly in payment gateway process stages.
2. The vendor uses its test plan to conduct a pilot study to determine the UA-readiness levels of ecommerce platforms, namely **Shopify (Proprietary), Magento (both proprietary and open-source versions) and WooCommerce (open source)**, for both desktop and mobile applications.
 3. Produce a clear and concise description of each deficiency and prepare the reproduction materials. The preferred format is a simple reproducer, suitable for use in a unit test or bug report. The vendor is not expected to report the bugs to e-commerce platforms; ICANN may or will do that (and probably enter into a dialog with the relevant producer/maintainer after the conclusion of the work).

Project plan

1) Develop a test plan

A detailed testing plan and test cases will be developed based on UA-relevant use cases, for review and feedback from the community.

The test cases should include all major uses of the ecommerce platforms which deal with input, validation, processing, storage and display of the different categories of domain names and email addresses identified as relevant for UA in at least five scripts, including Latin, a right-to-left script (Arabic), Chinese, Devanagari. The test cases must also include domain names with [new TLDs](#), long TLDs, IDNs, and email addresses with Unicode@IDN and Unicode@ASCII-domain-name.

Some additional details of the testing are available in the UA Readiness Framework report ([UASG026](#)). From the [UASG004](#) document, 10 email addresses and 10 domain names, test numbers from #32 through #40 and #56, should be included for testing, based on covering



the variety of issues to be covered and a sample of different scripts.

2) Testing and reporting

The vendor shall incorporate the community feedback to the test plan and conduct the testing based on the test plan.

After testing, a brief report should be compiled to share the test results, along with the detailed testing reports (as issue papers in separate files for each product).

3) Develop an issue paper

The vendor shall list the bugs for each platform and draft issue paper separately for each. The vendor shall provide following in each issue paper:

- The list of product details and services tested.
- In the appendix, include the testing domain names and email addresses used.
- Evidence of where UA readiness tests fail in a product or service, including test data, software product or service version and set up details, and screenshots of failed tests with short description.
- The report shall identify the issue's source (platform, website builder, or plugin) and provide detailed explanations where possible.

Deliverables

Based on the work summarized above, the contractor will provide the following deliverables:

1. Draft test plan and detailed test cases for testing UA readiness of ecommerce platforms.
2. Final test plan and test case suite for testing UA-readiness (spreadsheet with test cases) incorporating community review.
3. Detailed test report, including the tool versions tested based on the test plan and items listed in the description of the work #1, and enough details to permit another tester to reproduce the results.
4. Draft report on UA readiness of ecommerce platforms, including the following
 - a. Executive summary.
 - b. Tools and their configurations tested.
 - c. Scope of UA testing and summary of test cases.
 - d. Summary of the methodology used for testing.
 - e. UA readiness of these tools in different configurations, covering Unicode processing, IDNs and EAI support, as listed above.



- f. Comparison of three platforms' UA readiness support with percent indicators.
 - g. Recommendations,
 - i. for e-commerce store admins to select e-commerce products and configurations.
 - ii. for consumers to select UA-ready e-commerce products.
 - iii. for UASG technical WGs to address problems with the e-commerce platforms.
 - h. Conclusions.
5. Final report integrating the community input on the draft report.
 6. Presentation (for use as training material) (using UASG PowerPoint template provided) covering the contents of the report, with explanation of testing and observations. In developing the training material consider the following:
 - a. Purpose: Provide a high-level reference of the test plan, methodology, process, results and observations.
 - b. Target audience: Technical manager (i.e. high level audience). Knowledgeable about e-commerce platforms.
 - c. Length: The material should be constrained to no longer than 45 minutes, measured by the time one person (within the target audience) would reasonably be expected to need to review the material at his/her own pace
 7. Issue papers for each e-commerce platform based on the testing conducted demonstrating the issues that are supporting UA.

Timeline

- Tentative start date: Date of signing of the contract.
- Tentative end date: Three months of the contract start date.

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 this SOW. In addition, ICANN org COI applies.

Proposal Submission

The proposal should include the expertise of the organization with e-commerce platform configurations being proposed (with justification), a high-level test plan (based on use cases) which demonstrates the expertise available and understanding of the UA related issues. The proposal should be submitted to: UAProgram@icann.org before the submission due date.



Universal Acceptance

References

UA-Readiness Framework report ([UASG026](#))

Test domains and email addresses in various scripts [UASG004](#) ([data file](#))

To refer to previous documents, see document inventory:

<https://uasg.tech/wp-content/uploads/documents/UASG000-en-digital.pdf>

Top ranked ecommerce platforms:

<https://www.forbes.com/advisor/business/software/best-ecommerce-platform/>

<https://www.vaimo.com/blog/magento-open-source-vs-adobe-commerce/>

Universal Acceptance Steering Group

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