

UA Technology WG Meeting

05 December 2022

Attendees

Satish Babu

Jim DeLaHunt

John

Prince Andrew Livingstone Zutah

Mohamed Elnour Abdelhafez

Bertrand Kisito_CM

Rajiv Kumar

Samwel Kariuki

Sarmad Hussain

Seda Akbulut

Meeting Agenda:

1. Welcome and Roll Call
2. What to take up next from the [FY23 Action Plan](#)
+Public Suffix List (this term or next term?)
3. Review the comments on
https://docs.google.com/document/d/1LKxvRyTOufM_IgguTuat_iu5zc7-ckibuvrvis1Vp2c/edit, clean the document
4. AOB

Meeting Recording

Meeting Notes

Satish started the meeting with the update on UN IGF. We had a Universal Acceptance session in Addis Ababa at the Global IGF. There was a fair number of audience both online and onsite, the topic was 'how communities can help'. There were other presenters online and onsite as well.

FY23 Action Plan

Then we continued on the [Tech WG Action Plan](#) (page14), and talked about what the Tech WG should take up next from the list. Apart from the list here, there are also some upcoming new items. Satish suggested running through the list one by one.

Satish moved on to discuss the agenda items, the first item is the FY23 Action Plan, and what are the items to be prioritized in the next year. Satish said the budget is available for some items. The second agenda item is about the survey.

T1 is what was done earlier, which is to identify technology stacks where you are testing and it is part of other action items.

T2.1 “Demonstrate how to program for UA - Java, JavaScript and Python” has been completed, and published in [UASG043 report](#).

Sarmad explained on **T2.1** that initially it was to identify the stacks in cycles, and push it for developing the solution after identifying the stack. Eventually, the stacks will mean different technologies which are used for ‘Front end’, ‘Business logic’, ‘Back end’, ‘Database’ and so on. And not only for identifying, but also for suggesting a solution which is T2.1 in some way as well. UASG043 presents solutions in general with Javascript, Java and Python. The codes are available in [Github](#) and this repository is also integrated with UA training materials, which may be relevant to T4 action item “Develop additional training materials”. Comms group is currently planning on promoting the codes in Github targeting the relevant audience.

There are two ways, one is to concentrate on pure programming stacks, Java, Javascript and Python to cover significant programming bases. Other mobile platforms such as iOS or Android are considered as these are popular options, and solutions for those are still required to be developed.

Sarmad continued on the other possible actionable items. Another option is what is listed in **T2.2** “Demonstrate how to program for UA - Step by step instructions to make UA ready websites, configure CMS, etc.” - frameworks used rather than going for basic programming. For example, content management platforms such as Wordpress need to support multiple script languages, whereas **Wordpress is managing 40% of websites worldwide. We should focus not only on programming languages but also on websites to make them manage the contents with UA-readiness.** We need to look at solutions for the underlying

platforms. **If we want to make a UA ready website how can we do it using Wordpress?**

Other content management systems like Drupal, Joomla or others were not looked into. But another direction is that we published a UA roadmap for the Registry Registrar system. One of the comments received as part of the public comment process was that the Internet Service Providers and Connectivity Providers (ISPCP) which is one of the constituencies of GNSO suggested that it may be **useful to develop a similar roadmap for ISPs based on web hosting tools.** We took interest in this suggestion and that study ([UASG042](#)) was recently completed. That suggestion could possibly be taken up. Those were the items we went through with T1, T2.1 and T2.2.

T4 Training materials would continue to be developed.

Satish said that it will be useful to put these things down so that we can see what we have done so far, what is in what stage. And he asked Seda to capture this by the next call.

Satish said we would like to know if there are languages and libraries or solution development which has not been done or gone beyond. **If there is anything that the gap analysis is done but not the remediation, we should probably start with that, probably under T2.1 or T2.2.** Testing on Android and iOS has been done, but we have not gone beyond the initial studies and check deeper into the gaps.

Sarmad added that we have studied the Wordpress CMS and web hosting tools. There were a few testings which have been completed, now we need to prioritize on which test to go first and make decisions on the plan. [Satish said that we have yet to capture what task of which stage is completed or yet to be, so it is to be discussed in the next call.](#) T1 is like bread and butter activity for us, it will continue throughout while other steps have tasks to be completed.

Jim questioned about T1 what would help pick the technical stack or what the obstacles and opportunities are that face us. Satish said it had been going with gut feelings, and then it seemed to be needed to dig deeper. For instance, when we learned that Wordpress is 40% of CMS websites, we would focus on Wordpress and php for installable plugins. We still need to figure out how the web-content platforms and technical bases support the dominant languages. **New websites may use different technologies like Ruby, Rails or Rust and so on.**

Satish asked if we could go on with the current trajectory or need the help of a vendor to do web research. **Sarmad suggested taking a look at [UASG037](#) (page 4-5).** One way is to approach from a programming perspective, and the other is with content management; we only looked into three web hosting tools (Cpanel, Wordpress, ISPconfig). Sarmad said that this might cover what Satish suggested about documenting what remains to do and what is more important to do.

Satish said there are other important languages and libraries we haven't looked at yet. If we have limited bandwidth, what programming languages and libraries we need to focus, referring to UASG037 table where we can turn yellow ones into green, and then we can go on with other red items to become yellow, and then green.

Jim said there are several languages in the world, and mentioned about the obstacles from technical and marketing perspectives. A list of languages only talks about technical obstacles. On the other other hand, demands like business to business might happen. Jim said we need to know what are the market obstacles which are non-technical issues blocking universal acceptance.

Satish said that the survey will reveal some obstacles, and since we are the tech working group, we need to focus on finding the pain points on technical platforms and solve the listed issues, for example, by looking at Android's mail exchanges, and we can still work on our end of technical workarounds.

Sarmad said there are two things we can do. One is (referring to the UASG037 red-yellow-green table) to fix technical issues in the tools, report bugs and provide patches, etc. **Even if some of them are green we show how to use it to be ua-ready.** So a different way is to develop code samples and let the people see the actual demonstration of Universal acceptance and increase awareness.

Satish said there has to be some kind of assessment to check what are the things which were done and what are the most important things to be done. Satish said according to Sarmad, even if an issue is green, it does not mean our task is over, there would be another step to let the developers use the language and libraries. **Satish asked if we could prioritize sharing the code samples of the green-items. Sarmad suggested harvesting the lowest hanging fruits, that would be sharing the code samples of green-items.**

Satish said the other tasks would be finding out what is feasible for yellow and red items to be leveled up. [Satish suggested that if all agree with solving the](#)

selected red/yellow issues, we could discuss those in the next call. Jim suggested making sure that there is a possible course for some team to take towards universal acceptance, assuming that they would have a freedom to choose platforms or programming languages in implementation. Jim's idea is to share the UA-sample to be easily accessible by other developers so that UA-ready-samples would become widely applied. For this, spending more time identifying green items and documenting them would be the right way to go. Satish agreed and suggested starting from green ones. The green items are only libraries. Not all people may use the same library, and the library itself is not fixing the entire language of the platform. For instance, **if you're looking at Wordpress as a whole, and you're trying to figure out how to make it UA compatible, then whatever solution we can develop will immediately impact Wordpress platform.** On the other hand, turning the library to green **doesn't guarantee that a particular application will fix the UA gaps. For that reason, Satish suggested that we** might have to do a platform approach for Wordpress and a library approach for Ios and Android in parallel.

Satish also added that we may need to know how many downloads there have been for code samples. *(As of 19 Dec 2022 - download count for UASG043:62; UASG043A:57; count of stars: 4 in Github)*

Jim shared that with the Measurement Working Group, the topic of Android platform adapting the IDNA2008 is being discussed. This is an obvious example, some software complied with IDNA2008 and some did not, whereas those that do not comply with IDNA2008 do not display Sinhalese Internationalized Domain Name (IDN) labels very well. Again, there are some software which do not support IDN at all. **Thus, there are two kinds of software to focus on, one is to suggest software products supporting IDNs (regardless of IDNA2008 or IDNA2003), or the second option is to make IDNA2008 as an ideal goal and push software products to support it.** Because supporting something is not everything and what we want is everything. So, if some software just sticks to IDNA2003 instead of upgrading to IDNA2008, it will leave the Sinhalese written community behind. Meanwhile, Android and Google Chrome browsers are a major family of software which is in the 'supporting something but not everything' category. We have choices of making efforts to encourage Google Chrome to support the best standard *(which eventually make Google Chrome the best)* or talking to software products which don't support IDNs at all to start supporting it even though they

may not choose to adopt the best standard. Jim updated that the Measurement WG would keep working on this, and these two options are going in parallel for now.

Satish said that the ideal situation is to let everyone use the best standard, and **our intention is to have maximum people to benefit from it**, and not to make something the best. His personal opinion would be ‘supporting IDNs’ first regardless of IDNA version. There were no further comments on this topic, so Satish moved on discussing another agenda item.

Seda shared updates on T3, “Conduct technology remediation for websites”. Phase 1 is analyzing UA-readiness of 2000 websites and for which [UASG039](#) was published. Phase 2 is about reaching out to those yet-to-be UA-ready websites’ developers and share UA-awareness and UA-related solutions. This remediation phase is about to be completed in about a month. As it is not easy to get a reply from those websites, we also focused on a remediation approach starting locally on what websites can be done UA-ready. A few outreach mechanisms were done, UA-awareness activities like workshops and hackathons seminars were held with technical communities. Results on this phase 2 along with lessons learned will be shared once the phase2 is completed. Satish said now we have two parts here, one is to do measurement and the other is to outreach and encourage them to make a change.

T8- Contribute to the Annual UA Day in Feb. 2023: Satish also asked about UA day preparations. Satish shared his opinion on promoting the UA day event. We received automated responses from website developers and they are not bothered to make any changes. Through a mass media campaign, it may have the potential to influence website developers and content management platforms. **It may be useful to see how UA-day fits into Tech WG strategy.**

Satish asked if the remediation campaign to the website developers is still continuing. Seda said the promotion campaign via email was over but there are still outreach activities for websites that are not in that list. Regarding UA day, there will be UA training materials to be used for UA day resources, this will include the recent sample codes. Other than that, **step by step instructions for developing a UA ready website can be used as part of the UA day training material, if prepared by then.**

Satish paraphrased that T3 will be done by the end of December. For those non-UA-ready websites out of 2000 that do not respond to our outreach, there are no decisions made yet. Hopefully, results of T3 would shed some light on this.

Satish checked on **T4**. Since T4 is training material, it seems to be an ongoing action item.

T5 – Identifying the big Picture - is also the ongoing survey. Satish said he would wait for the ICANN's suggestion on the new survey tool to go on with this survey.

T6 - Update standards and develop best practices: Satish said there are documents on standards, and asked Sarmad what are the next steps. Sarmad said that UASG040 is a high level report and we haven't started to look at the opportunities yet. It needs more discussion. We will need to dig deeper which are the relevant or prioritized items or impactful in which way.

T7 - Academia outreach: Satish shared that the Measurement WG is also looking into this as well. Sarmad said that for this item the SOW has been completed and shared with the UASG Leaders. Sarmad suggested skipping T7 for Tech WG.

As a potential work item, Seda said there is a topic which could probably be called T9: This relates to Public Suffix List use in browsers and its impact on UA of IDNs. The topic was raised by an ISOC member.

“The issue has to do with the Public Suffix List.

Turns out that most browsers (Chrome, Firefox, Opera, etc.) use the PSL to determine whether a name typed in the search bar is a domain or a search term:

<https://publicsuffix.org/learn/> [publicsuffix.org]

So if one implements a new IDN, most browsers will not recognize it and will assume it is a search term.

We recently encountered this when we tried to open up and IDN ccTLD domain name,

and had to delay by 2 months until the PSL was updated and integrated into all browsers.”

One challenge from public-suffix-list is that browsers use a static list of domain names which are not updated automatically. Jim helped explain in the chat that <https://publicsuffix.org/> ‘ A "public suffix" is one under which Internet users can (or historically could) directly register names. Some examples of public suffixes are .com, .co.uk and pvt.k12.ma.us. The Public Suffix List is a list of all known public suffixes

The Public Suffix List is an initiative of Mozilla, but is maintained as a community resource. It is available for use in any software, but was originally created to meet the needs of browser manufacturers. It allows browsers to, for example

- Avoid privacy-damaging "supercookies" being set for high-level domain name suffixes
- Highlight the most important part of a domain name in the user interface
- Accurately sort history entries by site’

Sarmad said that it is Jotten, who maintains the suffix list, that they are keeping the list on a volunteer basis. The second thing is that even if their list is updated, the browsers or applications which use their list may not be updated very immediately. The third question is if there are any alternatives. Satish asked to confirm if this is a UA related item and Sarmad confirmed yes.

Jim found the Public Suffix List interesting, and good for UASG to understand. He discovered that they have been supporting internationalized domain names and encouraged them to look into. Satish suggested studying it closer. Jim explained that the list was initially for the purpose of preventing cookies. Sarmad said this list is the white list. Sarmad shared the SAC-070 [document](#) on this topic, Satish suggested that everyone check this document by the next meeting. **Satish also suggested adding this to our action item next year.**

Satish also suggested the next meeting to be on 19 Dec and to take a break on 02 January and then start the working group meetings again on 16 Jan.

Agenda of the next meeting has been captured as:

- List of ongoing and completed tasks that can be used for future remediation
- Reviewing the red/yellow ones in the UASG037 table (page4-5)
- Inputs on the SAC070 Document

Next meeting: Monday 19 December 2022 at 16:00 UTC

Action items

No	Action Item	Owner
1	Look into SAC070 Document , and add this to the action item for FY24	Tech WG
2	Make a list of of the things that have been done with their status details	Seda
3		