

Metadata

- IRC: #scary-apis
- Chairs: Sangwhan, Dan, Lea
- [Notes for The Future of Powerful APIs on the Web Platform, TPAC 2023](#)

Present:

- **Dan Appelquist (Snyk, Invited Expert, TAG)**
- **Lea Verou (Invited Expert)**
- **Sangwhan Moon (Google, not Chrome)**
- Brian Kardell (Igalia)
- Brian May (dstillery)
- Diego Gonzalez (Microsoft)
- Howard Wolosky (Microsoft Edge)
- Kenneth Christiansen (Intel)
- Ian Clelland (Google Chrome)
- Martin Thomson (Mozilla)
- Michael Ficarra (F5)
- Xiaoqian Wu (W3C)
- Nick Doty (CDT)
- Ben Kelly (Google Chrome)
- Thomas Steiner (Google Chrome)
- Austin Sullivan (Google Chrome)
- Zainab Rizvi (Google Chrome)
- Hyojin Song (LG Electronics)
- Christian Liebel (Thinktecture)
- Vincent Scheib (Google Chrome)
- Marcos Caceres (Apple)
- Tim Nguyen (Apple)
- Devlin Cronin (Google Chrome)
- Matt Reynolds (Google Chrome)
- Reilly Grant (Google Chrome)
- Hongchan Choi (Google Chrome)
- Harald Alvestrand (Google WebRTC)
- Tara Whalen (Cloudflare)
- Christian Dullweber (Google Chrome)
- Kagami Rosylight (Mozilla)
- Peter Van der Beken (Mozilla)
- Marek Blachut (HM Government)

- Would propose that there is a coordination particularly with Web Apps WG
-
-

Questions queue

- Ben Kelly (Google Chrome): What is the output of the task force?
 - a. Ben: In the privacy task force there was a deliverable, what is the deliverable from this?
 - b. Dan: It would be a number of deliverable, likely reports. TAG doesn't have the right power to deal with IPR and recommendations.
- Reilly Grant (Google Chrome): If a "powerful" context has some features "de-webified" is this still part of the web platform and in scope for the W3C?
 - a. Sangwhan: We believe so.
 - b. Dan A: What does "de-webified" mean?
 - c. Sangwhan: For instance, if we start messing around with the origin model.
 - d. Lea: origin model is a good example. The origin model makes total sense for visiting random web apps on the open web. But if even installed webapps are *still* bound by the origin model with no way around it, then their capabilities are still restricted... e.g. native apps can send requests to any URL... we need to make installed webapps competitive
- Vincent Scheib (Chrome): Please mention how a TAG task force helps vs only the web apps working group?
 - a. VS: Why is webapps working group not the solution here? How is a task force helpful?
 - b. Sangwhan: webapps could potentially be the place where work happens - but we want to have an investigation / explore this problem space. Also it crosses across multiple boundaries - e.g. miniapps... Eventual goal is for the task force to come up with actionable deliverables for the webapps wg.
 - c. (Thomas Steiner: Shameless plug, but I think useful in the context: [Mini apps.](#))
- Nick Doty (Center for Democracy and Technology): useful for APIs that need extra protection or used only in exceptional situations, but not just a "native apps replacement task force"
 - a. ND: I think there is important work that can be done on powerful APIs - there may be some we want to add to the web platform - certainly willing to discuss that - we could add some of these APIs in less bad ways - but a lot of what I'm hearing is "can we make webapps more nativey" or "break fundamental security properties of the web" and that seems less valuable. Lots of work on how to make webapps more powerful. Don't think we should break security properties of the web. Value in APIs in special circumstances.. But let's not hurt security on the web.

- b. Appelquist: Agree on not hurting security on the web. AND, some developers require capabilities that are present in native apps, so can we do this in a way that is safe.
- Matt Giuca (Google ChromeOS): What does “faster iteration” mean and why can’t that apply to the whole of web APIs development (what would be specific about “powerful APIs” to warrant “faster iteration”)?
 - a. MG: Faster iteration - what is specific about powerful capabilities that would invite faster iteration?
 - b. Sangwhan: 1 - having task force focus on prototyping ideas rather than standards track from day 1... not suggesting with shortcut process ... but suggest that the task force doesn’t do the work of the working group.
 - c. Lea: The exact separation of concerns is still up in the air, IMO the TF should identify user needs, perhaps write speculative explainers, then hand off the spec work to a suitable WG.
- Brian Kardell (Igalia): statement/question about Embedded
 - a. BK: I think it’s a good idea - like the way you’ve drawn the connections to reality, related to the work in Miniapps... also Electron... we’ve had lots of stuff in the past - e.g. phonegap - use of web technology that isn’t the web browser. .. thinking about those things and where they draw security lines.... you should include embedded. E.g. TVs, digital signage, touchpad in this room controlling video meeting.. Playstation.
- Jonathan Kingston (DuckDuckGo): Is the opinionated browser use case within scope of this task force?
 - a. JK: we’re building browsers based on webviews – opinionated browsers - more private, more secure...
 - b. SM: I’d expect opinionated browsers to opt out. opinionated to turn features on...
 - c. VS: some opinionated browsers on iOS specifically add capabilities that aren’t available in safari.
- Martin Thomson (Mozilla): please don’t mess with the origin model. Also, please don’t assume that all capabilities are on the table. don’t let envy of native capabilities drive this. take TCP as an example: the wWweb is just better.
 - a. MT: don’t mess with the origin model. Origin model key to the web. The web does not provide the capability to make TCP connections to arbitrary sites - I consider that a feature rather than a bug. Need to consider the use case, not the specific capability (communicate vs. make TCP connection).
 - b. Lea: I’m not sure what is the security benefit of us saying that there should be no way for web apps to do it, no user signal strong enough, so companies will deploy in other ways. There should be a signal strong enough to meet the need.
 - c. MG: Hand raised
 - d. Simeon: Hand raised
 - e. MT: that’s not the web.
- Marcos Caceres (Apple): The Web is not native apps. New context feel presumptuous (to Nick’s point about breaking security properties, and what Martin said). We have

models for doing these things safely. WebApps WG can produce documents. We need to approach adding things to the Web in “a web way”.

- a. MC: that’s not the web - native apps are not the web - goal is to build an amazing platform - with the amazing principles brought in through w3c. Please remove “de-webified” if you’re going to launch this... At the same time we do have mechanism for adding capabilities - installation, web share, payment request, etc... we have models to do it “the web way” - we do it right for the web. Not follow whatever native does. Learn from the mistakes of native not do those in the web.
 - b. MG: i don’t want to remove the first point - at a certain point, not every site but we are building an application platform to compete with native with a whole lot of benefits including security - origin model, user trust, etc... But certain things you can’t do. You can do websockets and fetch, but you can’t invent bittorrent from scratch, or the next thing on TCP, and eventually bring it to the W3C... I want the web platform to be able to ask the user – where people can innovate as developers - using fundamentals...
 - c. VS: regarding: “that’s not the web” ... the web will be changing and evolving, we need to be more specific about the concerns and impact on people. E.g. Javascript, CSS, weren't ‘the web’ at some point. We can’t attempt to only solve a problem within a small circle. E.g. TCP, the web has an opinion about that: “move to another platform”. That just moves the concern outside of our circle of interest but doesn’t solve needs people have.
 - d. Dan: This is an argument we’ve had repeatedly and we’re spinning up this task force in an attempt to move beyond it. We need to figure out the scope where we can agree and proceed with multiple implementers in agreement. I believe that that scope exists because I see powerful APIs being worked on by multiple implementations.
 - e. Brian: I think there are multiple levels where you can agree and disagree and still have productive discussion. We should acknowledge where we have common ground on things which we’ve built outside the web like Node and Bun. I think there’s ability to have a productive discussion without needing to decide what is or isn’t the web.
 - f. Martin: q+ (this is an awkward system; I’ll step aside if chairs want to move on; I wanted to respond to Vincent, who made what I think is a mischaracterization of Marcos’ better articulation of my concerns. “That is not the web” is a handle for us saying that finding the web way to do X is what makes the web better than classical native applications.)
 - VS: agree with “find the web way”
- Simeon Vincent: Clarification request. Most of the discussion has focused on webapps, but my interpretation of the taskforce’s stated goals is targeting a slightly different set of problems. I’m primarily focused on WebExtensions, and I’m interested in exploring how we can better align our APIs and capabilities with the open web. Is this taskforce focused on exposing powerful APIs to things built with web technologies, exposing powerful APIs on the web, or both?

- a. SV: with web extensions... enhancing capabilities... for UAs or other things that leverage UAs... Is the task force exposing on webapps or are extensions in scope?
 - Lea: it should be in scope, but we haven't thought about it.
 - Sangwhan: We haven't thought about it.
- Lea: I think there are two largely orthogonal questions here:
 - a. Is there value in standardizing APIs for these capabilities, so that the runtimes extending what the Web Platform can do (e.g. [Electron](#), browser extensions, JS runtimes etc) can be interoperable?
 - +1: VS, Lea,
 - b. Do we have consensus that we see value in the Web Platform being able to compete with native on equal footing (or close)?
 - Arguments: low barrier to entry, lower effort (no need to recreate UI with an entirely different set of technologies), consistency for end-users, increased buy-in on the web platform as a whole, ...?
 - Counterarguments: ??
- Penelope McLachlan: will the taskforce be looking at a single differentiated powerful trust context, or a trust gradient? Gradient introduces possibility of features progressively enhancing to more trusted environments (vs locked/unlocked)
 - a. Dan: Maybe? Related: Mike West's "secure-er context". Something that should be looked at.
 - b. VS(offline): We see this already with e.g. notifications being allowed only based on install.
 - c. NPD (offline): agree that we shouldn't assume a binary powerful/non-powerful context. But I'm also not sure there should be a scalar power gradient either. The Web is successful because different capabilities and functionalities can be used in different ways by different sites.
- Marcos Caceres (Apple): the task should explore what's worked (and what hasn't) and see if there are good patterns. It's not an issue standardizing APIs to do powerful stuff. It's about not giving up on the Web's security model. It's presumptuous to think you can't have these APIs or capabilities without the web's security model. I'm worried about the task force being biased towards wanting certain capabilities.
 - a. MG: I don't believe we're suggesting that we copy-paste Electron APIs into the web.
 - b. Reilly: building on that: The web security model is mentioned. Downloading and opening files breaks the origin model in a strict sense, but generally agreed as OK. How can we take capabilities and build the web way, use a security model that is similar to our historical web security model. Need to do the work of looking at each example.
 - c. Lea: I think "the Web" in this context is a bit misleading, web technologies are used in all sorts of contexts that are not strictly web apps (e.g. publishing), this is about standardizing capabilities around one more non-Web context, not relaxing the security model of the Web.

- Brian May: I think it is important to keep in mind what the impact on users is going to be – are we going to make the web model intractable to users?
 - a. Users have an implicit understanding of the web security model - I have no arguments against extending the capabilities - but we should not put users in a position where they no longer understand.
 - Penelope: +1 user & developer mental models are important
 - b. Hadley: +1
 - c. This will definitely be a consideration of how much complexity is being added to the platform.
- Matt Giuca (Google ChromeOS): Would like to see TAG differentiate between feedback on design vs feedback of the type “this is too powerful for the web”. (Related to the “standardizing capabilities even when we don’t agree in what context they should be exposed”.)
 - a. Lea: +1. This was actually part of the motivation for this effort.
 - b. Sangwhan: +1
- Swetha Sivaram: Would the task force also consider how developer friction and usability reduces or remains the same while the apps they build get more powerful?
 - a. Ways to reduce friction for developers creating such powerful webapps..
 - b.
- __eof__