



Notes

Nov 18, 2025

UNTP Technical WG

Invited bvanderpol@usetappr.com [Jo Spencer](#) markus@danubetech.com

[Nicholas Smith](#) [Phil Archer](#)

Attachments [📎 UNTP Technical WG](#)

Meeting records [📄 Transcript](#)

Summary

Phil Archer and Harley Thomas discussed the politically charged nature of standard alignment, noting the jostling between entities such as UNP, UNCCE, the European Commission, and various nations, particularly regarding the Digital Product Passport (DPP). Phil Archer pointed out a "big red flag" in the specification regarding the misrepresentation of the ISO/IEC 18975 standard, emphasizing that this standard is a framework for creating resolvable URI structures, not a definition of GS1 Digital Link, a factual inaccuracy that Harley Thomas agreed must be resolved by involving "Steve" for input. They also discussed the landscape of competing Verifiable Credential standards—W3C, ISO's MDOX, and a Microsoft-driven version—with Phil Archer explaining the rationale for these multiple approaches, while Harley Thomas suggested that UNP could justify its use of W3C credentials due to its open development and governance.

Details

- **Political Nature of Standard Alignment** Phil Archer, drawing on experience since 2005, described the highly political nature of the work, noting that what they are doing is inherently political, involving jostling between various entities like UNP, UNCCE, the European Commission, and various nations. He commented on the constant pressure to "align standards," which in practice often means persuading

others to adopt one's own standard, leading to entrenched positions and conflict, particularly concerning the Digital Product Passport (DPP) ([00:01:03](#)).

- **Proposed Changes to the Specification** Harley Thomas noted that Phil Archer's pull requests had not yet been merged, and asked whether they should review the requests or focus on the identity resolver page. Phil Archer offered to share their screen to point out specific issues in the specification ([00:12:08](#)), highlighting a "big red flag" in the first bullet point regarding the resolution process and the misrepresentation of the ISO/IEC 18975 standard ([00:12:58](#)).
- **Correction of Factual Errors in Specification** Phil Archer emphasized that ISO/IEC 18975 is a framework for structuring offline identifiers into URIs and does not define GS1 Digital Link. Phil Archer stressed the technical reality that the specification should reflect this framework nature and stated that their primary job is to correct factual misrepresentations, especially given the strong opposition GS1 faces ([00:12:58](#)). Harley Thomas agreed that factual inaccuracies need to be resolved and suggested involving "Steve," the presumed original author, on the GitLab issue for input ([00:15:27](#)).
- **Explanation of ISO/IEC 18975 Framework** Phil Archer, having authored the ISO/IEC 18975 standard, explained that it sets out two frameworks for creating resolvable URI structures: the "structured path approach," which GS1 Digital Link follows and is based on linked data, and the "query string approach," which IEC 6146-2 uses ([00:15:27](#)). They clarified that this standard is a framework, meaning it cannot be used directly; other standards like GS1 Digital Link must conform to it to say that their standard is compliant with 18975. Phil Archer also explained how the framework relates to the UNP, which enables taking an existing identifier and making it resolvable through URI structures, often involving layers like URI structure, link sets, and resolver services ([00:18:41](#)).
- **Multiple Approaches to Verifiable Credentials (VCs)** Phil Archer mentioned that the UNP's current approach uses W3C credentials, and Harley Thomas noted that Steve had flagged potential pushback on the types of VCs used, which they had not yet encountered directly ([00:24:49](#)). Phil Archer confirmed that there are multiple competing VC standards—like ISO's MDOX (Mobile Driving License), a Microsoft-driven version (anti-linked data), and the W3C version—which, despite having similar core concepts, are not interoperable in their implementation ([00:26:08](#)). Phil Archer hoped the UNP could maintain its current approach, as it aligns with other significant implementations like US Customs and Border Protection and Syong in Singapore ([00:27:22](#)).

- Rationale for Competing VC Standards** Harley Thomas inquired why multiple VC standards exist if they are conceptually similar. Phil Archer suggested two primary motivations: governments often mandate ISO/IEC standards, leading to closed-room development like MDOS, and certain groups, like the Microsoft-driven contingent, are fundamentally opposed to JSON-LD and linked data ([00:28:29](#)). Phil Archer highlighted that the UNP's selection of the W3C method was influenced by consensus, personal relationships, and the initial adoption by the US Department of Homeland Security ([00:30:20](#)).
- Open vs. Closed Standards Development** Harley Thomas suggested that UNP could justify its use of W3C credentials by pointing to W3C's open development and governance, which aligns with UNP's values ([00:31:20](#)). Phil Archer strongly agreed, noting that organizations like UNECE, IETF, and W3C are open, while ISO is fundamentally a "closed standards body," despite its claims of an open process ([00:32:18](#)). Phil Archer concluded that while they have chosen one method for now, they expect the landscape to evolve and may need to adapt in the future, citing the example of Gly, which had to conform to the system adopted by the Department of Homeland Security ([00:33:13](#)).
- Next Steps for Specification Review** Phil Archer confirmed that the current pull request is narrowly focused on factual corrections, but if Harley Thomas accepts it, they would follow up with a more subjective, editorial pull request that requires group consensus ([00:23:56](#)) ([00:37:57](#)). Phil Archer's goal is to ensure the specification is accurate and acceptable to both those who oppose GS1 and the numerous people who support it. Harley Thomas was amenable to Phil Archer's plan and appreciated the approach ([00:38:54](#)). The group is currently scheduled to meet every two weeks, with the next meeting on a Thursday ([00:39:53](#)).

Suggested next steps

- ☐ Harley Thomas will do homework to understand the technical bits of what is being referenced regarding the identity resolver page and call out Steve on the GitLab issue to get his input on the factually incorrect information.
- ☐ Phil Archer will read the pull request again to check for any missed factual errors and offer a more subjective thought request to Harley Thomas after the initial pull request is accepted.

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Transcript

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UNTP Technical WG - Transcript

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Harley Thomas: Oh my god.

Phil Archer: first working group in you know June I remember it was July 2005 um and you know doing stuff since then um and so this is yeah it's just but of course it's always changing new people new ideas new ways of working um and what can I say um and you realize things are going on you didn't realize were going on years ago um like and this particular project that you Because the UNP project, it wouldn't have occurred to me 20 years ago, even though it's now blindingly obvious, would have been seen as so political, and it is.

Harley Thomas: H.

Phil Archer: What we're doing here is highly political whether you whether we like it or not, and none of us do like it. Um, and the jostling between UNP, UNCCE, European Commission, the Americans, the South Americans, the Chinese. Um, and it's all this horrible mix of people saying, "No, I want to do it my way. No, no, my way. No, no, my way. No, no. Everyone should do what I do." I

00:01:03

Phil Archer: mean, that's always been the case. Um, uh, you hear all the time, "Well, we should align our standards," which is a lie. What they mean is you should use my standard. That's what we should align our standards means.

Harley Thomas: I I I think I've seen you post a meme on LinkedIn because I follow you where it's it was like two faces.

Phil Archer: You should do what I do. Yeah.

Harley Thomas: It was like we should align standards and it was like you should align to

Phil Archer: That's the one. Yeah, that's the one. Yeah, exactly that. Right. And and I've heard it a hundred times and you know I I will again. Um and so uh finding a way through that is depending on the atmosphere. It can be fun because people are actually working together to actually come to a common solution or you get the entrenched positions like no you're you're bad. You're useless. You're you're an amateur. You're you know you

know what you're doing.

00:01:51

Phil Archer: You're bad. But I'm good. Um, which is what's going on with DPP all around the world. Um, and it's horrible. It's absolutely horrible. Apart from that, everything's fine.

Harley Thomas: Sorry, I just I just stopped taking notes of Gemini. So, where did your where did your burning like has this just been an interest that you've just had? Is this a lifelong body of work that you've done? You've just always, it's just always scratched that itch in your brain. Or where's it come from?

Phil Archer: Um I I I opportunity for a start being happening to by pure luck being in the right place at the right time. um and uh passion for things being ordered and organized, which my wife would find hilarious cuz she thinks I'm the least organized person there is, of course, but never mind. Um so I like the idea of of structure and frameworks around things and so on. So um uh I I I remember um I was sitting at the dinner table with someone years ago and she asked me the same question and I took the cocktail sticks and I just arranged them in a neat pattern.

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Phil Archer: I said, "There you are. That's me." So just she and and her mind went, "Oh, right. Okay. You just like things in squares or boxes or well not quite, but you know, not what I really like." But

Harley Thomas: Oh, not that you really like cocktails, that you like water. Okay, I get it.

Phil Archer: then but then it true, but then it's like you I mean you're you're you're um a software engineer, right?

Harley Thomas: But both things could be true.

Phil Archer: So you like structure, you like, you know, if then else. You like here's an object. Here's how I process it. Here's if it goes right, here's if it goes wrong. What am I going to do? It's the same way.

Harley Thomas: Yeah. Yeah. Yeah. Yeah. I this whole I mean you you'll quickly find out that I'm merely just a cat herder in leading this technical working group and I try my best to offer something unique and any kind of valuable insight, but I'm finding I'm Yeah.

00:03:45

Harley Thomas: To your point, I've been a software engineer. I like building out technical things. When you have a solution that just works and you know that that is the optimal solution, it really just scratches that itch in your brain.

Phil Archer: Yeah.

Harley Thomas: You take something complex and then you make it simple and you're like, "Oh, thank God."

Phil Archer: Yeah.

Harley Thomas: Like to your point, before you've made that leap, you have no idea what the answer is. And then when you've made that leap and you look back, you think, "How could I not see that this was the answer the entire time? It's so simple and incredibly obvious." I like that. But then now transitioning into because we we do supply chain traceability and stuff.

Phil Archer: Yes.

Harley Thomas: That's what the company I work for does.

Phil Archer: Yeah.

Harley Thomas: But obviously the importance of what's on the screen now is just cannot be understated. But I'm finding that there's just an entire world now that I've known has always existed, but I'm not as entrenched as someone like you are is.

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Harley Thomas: So when you sent that email, my response was just like whatever you say is probably a million times better than what I ever have to say on that. I'm here to learn. Just uh talk to me like I'm a monkey.

Phil Archer: Uh, don't think that. Don't think that. Absolutely don't think that. I I am a retired disc jockey. Um, this is what I did years ago. Um, I'm I'm not an expert. I don't have a degree in anything, let alone computer science. Um, so no, please don't take that. Um, yes, I'm an old man. And yes, I've been around for a while. Um, but no, please please please don't assign please don't equate my uh age with um and yes, I've seen a few things before, but it it does not mean it absolutely categorically does not mean and please don't ever take it that I'm that I know more than you. I absolutely don't. I absolutely categorically do not.

Harley Thomas: I think you're lying, but I get the spirit of what you're trying to say.

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Phil Archer: Uh, so anyway, it's just you and I then. Is that is that right? Because I'm I'm very glad to talk to you.

Harley Thomas: Yeah, I yeah, it's pretty it's pretty hard to get attendance.

Phil Archer: It's good.

Harley Thomas: Like people hop on and they ask questions about the UNP, but then when I ask people to actually roll their sleeves up and try and tackle the GitLab issue, you kind of get crickets.

Phil Archer: Right.

Harley Thomas: So, um, but I'm sure that's somewhat common in a lot of working groups. People like to hop on and and say what they want and what's s*** and what needs to change, but then you say, "Oh, do you want to help out and do it?"

Phil Archer: Yeah. Yeah. Yeah. Yeah.

Harley Thomas: They say, "Um, I'm busy. This is just a volunteer position." So,

Phil Archer: That's right. Yeah. I mean, um, last week at the So, um, in the verifiable credential working group, we're, um, sorry, uh, working on a new charter for the next phase, right?

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Phil Archer: And so there there's a list of things that we could standardize. And the question is, and the question is, it's not just who wants it. It's it's um who's going to write it? Who's going to build the test suite? Do we have at least two implementations? Um and you know, to your point, it's who's actually going to do the work? Because if the answer is crickets, well, hey, guess what? It's not going in the charter. Not doing it right. You know, it's it's um it's essential.

Harley Thomas: And and do you find that in a lot of these things you only really get strong participation can contribute uh contributions when there's an immediate commercial value to be an expert in it. Is that is that your experience

Phil Archer: Yes. Um almost entirely. Um so there's a one of the sessions I was in last week which was a follow on from discussions on email. So W3C like any membership organization is constantly trying to work out why its members don't speak up more.

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Phil Archer: Right? So here's a proposal for something that we want to standardize whatever it may be a new CSS and new HTML whatever. And most of us don't say a word. And I keep saying that's because the people I work for don't care. So GS1 doesn't care whether there's a new CSS module. Is it important? Of course it's important. Yes. Go away and do it. But it's not something for us. My job there, my job here is to represent GS1. That's what I do.

Harley Thomas: H.

Phil Archer: And so within the confines or opportunity, however you want to say it, of working with people around the world to a common goal with all good faith, I want this to succeed. I really want UNP to succeed. I will do all I can to support the project as long as it's it it uh fulfills the the need that GS1 has which is that we think this is really important as one of the world's leading product identifier systems.

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Phil Archer: We think we have a role to play and we're very happy for other people to play their role. Of course, of course there are competitors not trying to stop that. Um, and so if anything's written about us or stuff that we do, let's make sure it's accurate and fair.

Harley Thomas: Hat.

Phil Archer: Which brings me on to the identity resolver section, which is neither of those things. Um, and so I'm motivated because it is in my interest and more importantly, it's in my employer's interests that on this to take this limited example, the identity resolver page need some work.

Harley Thomas: Heat.

Phil Archer: Now there are two ways of doing that. The first thing is let me physically correct the actual objective errors of which there are a few.

Harley Thomas: Mhm.

Phil Archer: That's the first thing. If everything that's written down in that document is true, then I have then okay. If it's true and written in a way that is artificially in favor of GS1, that's a bad thing. That will work against community cohesion.

00:09:14

Harley Thomas: Mhm.

Phil Archer: I don't want that. If it's written in a way that actively works against the GS1 position, I don't want that because that's unfair to GS1. So, we're trying to find a line that is objectively true and that is neutral to all comers and that's often a hard thing because that that's what consensus is about that.

Harley Thomas: Yeah.

Phil Archer: So, consensus doesn't mean unonymity. It means that everyone can live with it and there's no strong objection.

Harley Thomas: H.

Phil Archer: That's that that's what the standardization process, whether it's here or anywhere else, is all about. At least I think so anyway. Um and obviously, yes, I've been inspired by people um who've done this long before me. Um Tim Berners Lee being an obvious uh example, but so what I'm trying to do here in this group and I realized that first of all, I always meant to be in quote your group unquote and quite I obviously messed up and I missed it. I'm sorry. I should have been here from the start.

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Phil Archer: I'm sorry I'm not. I'm now playing catchup with you. Um, so my my my my first goal is to make sure there's nothing factually incorrect and then I want to as far as is within the bounds of what the group as a whole will accept and what I will accept from them. We come to a consensus view on how to present this stuff. So there are alternatives. Of course there are alternatives. There are always alternatives. Fine. There are alternatives. um as long as the text is not so that it says hey this is a really good one and there's this other one over here you don't really want and that would be wrong whichever way around that is so the pull request I put in the other day which I don't think I've actually gone through or if they have then I need to do some more because I I don't know um for whatever reason looking at what is currently published still needs facts to be corrected but I don't know whether that's because I messed up or something whatever ever or I miss them or whatever, but I need to go through it again uh and

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Harley Thomas: Yeah.

Phil Archer: offer you more pull requests. Um and then there's the bigger question of what is the what is the zeitgeist around this? What is from your from from the engineering point of view? Um who is know who shouldn't matter? Who shouldn't matter? What is the the general feeling and what's your view on how people are planning to implement? What do they like? What do they not like? How do we make sure that the technology can support all comers without becoming meaningless because it just says do what you like which is pointless

Harley Thomas: Yeah. Yeah. Yeah. Well, how about I'll turn I'll start turning on the media notes now. And I have no strong opinions to I completely agree with everything you just said. So, please feel free to rip to shreds the identity resolver page. I'm really keen to learn from you about what uh could have been missing. So, let me do that. All right, we're going.

00:12:08

Harley Thomas: So, and and just so your pull requests haven't been um merged yet.

Phil Archer: Right. Okay.

Harley Thomas: I do not believe they have been. Uh no, they are still here. So, did you want to go through these individually or did you want to work through the identity resolver page?

Phil Archer: Right.

Harley Thomas: I'm keen to understand some.

Phil Archer: I can just I can just point out a couple of things to you if you just go back to the spec. I'll point out a couple of things so you can see where I'm coming from.

Harley Thomas: Yep.

Phil Archer: So, um or it might be easier if I share it because I I know where some of them are. Should I do that?

Harley Thomas: Yeah, good. Good idea.

Phil Archer: Uh um let me do that one. Right. So for example um and this this occurs several places so we don't have to go through all of them but that first bullet resolution typically achieved by dreerencing a URL template defined by the identifier scheme eg ISOIC 8975

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Harley Thomas: Mhm.

Phil Archer: digital link. That is a big red flag because it's not true. So ISOIC 18975 first of all it's not called digital link and secondly it absolutely categorically double underline big flashing red letters does not define GS1 digital link.

Harley Thomas: Mhm.

Phil Archer: It is a framework for how to put identifiers that exist offline into a URI structure and it offers two ways of doing it. GS1 digital link is conformant with one of those ways. IC6146-2 identification link is conformant with the other way and how an individual identification system specifies how to do something is up to them but it is a framework into which digital link fits. Now the politic so that's the that's the technical reality that I'm keen to make sure is reflected the politics of this are that there are people who strongly very strongly like lifelong strongly oppose GS1 and will do everything they can to undermine us. Um my job is not to is is in this sense is simply to make sure that what is said is true. As I said to you before, what is true, fine, it's true, the these various things, but don't misre don't misrepresent us.

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Harley Thomas: Mhm.

Phil Archer: Um, and and that's kind of where I'm where I'm getting from. Um, so there those so that pull request I put in, if it works, should should correct. Um, sorry, I just wonder what is it's a delivery driver. Sorry. Should correct those. Um, so that's that's the that's the factual level. Um, and then I may have some more comments on just like do you have to say it that way? Could you say it this way? Would that be okay? You know, there's kind of a there's two levels to it. And I stopped at the these are facts I need to correct point before I spoke to you and maybe others in the group to see how people feel.

Harley Thomas: Yeah. Me personally, no strong feeling. Um, I'm yet to understand why it's factually incorrect, but I believe you that it is. So, I need to do my homework to understand the technical bits of what is being referenced here. This is I refactored the identity resolver page as it is now.

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Harley Thomas: Those dot points that you see now, I inherited from whoever written this originally, which I'm assuming is Steve.

Phil Archer: Right.

Harley Thomas: So maybe a good action item is is that we call him out on the GitLab issue to get his input as well. But if it's factually incorrect, I think it's pretty black and white that it needs to be resolved to not be factually incorrect. I agree with you. That's that's kind of really not up for debate. Yeah.

Phil Archer: Um yeah, I mean that's really comes down to. So um so I mean it's how did I mean I I think Steve wrote the original. I took a stab at it as well. Um it's had a couple of things change. Let me just show I'll just um Excuse me. Uh why can't I just uh just do another screen because it's so much easier just to do that. Then let me show you what this is. This is 18975 which in case you weren't aware I wrote so I'm fairly familiar with its contents.

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Phil Archer: Um and also not allowed to show you this because oh no ISO no behind closed doors you're not allowed to see this. Um, but I'll give you uh uh where's stuff that matters. There's some there's some sort of abstract stuff around how things work. But basically, there are two when I find a can I find a contents page that would be useful. Is there a contents page? God, I hate ISO. I hate ISO is such a passion. When I've retired and not until I'm gonna have a lot to say about ISO. Um so there is it sets out two frameworks. One is called the structured path approach which is what GS1 digital link follows.

Harley Thomas: Mhm.

Phil Archer: Um which has which is all based on link data. So you have increasing granularity left to right and that's what we use.

Harley Thomas: And that's like the qualifiers and the identifiers like being the pairs that work along the um the path.

Phil Archer: Yeah. Yeah. So 01 slash followed by the G10 slash 21 slash followed by the serial number because they're they are in order because that's the way link data works.

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Harley Thomas: Yeah. Yep. Yep.

Phil Archer: That's what that's for.

Harley Thomas: Yep.

Phil Archer: And stuff that doesn't matter like expiry dates and so on. But I stick it in the query string because no one cares what order they're in. The query string approach is put everything in the query string just the whole lot.

Harley Thomas: Okay. Gotcha.

Phil Archer: So there's no link data approach in there. It's just taking um the full URL including query string and the whole thing is is is the one and only identifier um and you use that as your key in your own system and it's going to be in the full URL as a foreign key in any in any other system and a bunch and there so the the important thing is there that it does set out two approaches the structured path which is what we use

Harley Thomas: Mhm.

Phil Archer: and the query string approach which is what IEC 6146- two uses and to give examples of that somewhere down here there's an example of a structured path that's obviously the GS1 digital link version um uh and there the domain name is not part of the identifier um you can obviously it's a URL so it works online but it's not part of the identifier um and then this is an example of a structured path following the um

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Phil Archer: Zemen's Bosch BASF approach um which um has different kind of ident data identifier. So 25p is a data identifier and for reasons that I do not understand at all they like to put a dot in front of it. I don't know why but they they they think seem to think that's important. Okay fine do that. So it's that it's that um dual approach that um that standard sets out and it is only a framework. You can't use it directly. you have to then publish something like the IC61406 or the GS1 digitally or something else, excuse me. Um to be able to say, yeah, this standard here conforms with 18975. Um and that's what we're trying to do. But from a from a So that's sort of the background. What matters for UNP is that it allows you to take an existing identifier, whatever it is, nothing to do with me, which system you choose to use. Um, here are the two ways that you can put those into a URI structure so that you can make them resolvable.

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Phil Archer: And again, things relevant to UNP is it says an option and it is only an option within the ISO standard. An option is to connect that to a link set. And if you're going to do that, there's the link set standard. Use that. If you do that, you may also want to go further than that and build a resolver service on top of it so that you can resolve this initial URI to go to get the link set and the resolver

Harley Thomas: Mhm.

Phil Archer: can if you want set up a service that automatically selects the link you want from that and redirect you to. So the whole thing's in layers. URI structure got identifiers then URI structure connect to a link set and then if you want to you can then build a resolver on top of that. So the whole thing is in is in those layers. Now if if you felt it relevant I could easily write that up as as part of this. But what UNP does it says no we want to resolve you want to be able to resolve and go straight to stuff.

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Phil Archer: Okay. So it's like all all all four layers in one. Um and then of course there's the stuff around dids which of course I understand and in a lot of ways they're very very similar. They they they again have you have an identifier that obviously goes to a DID document. That DID document may have multiple service types or multiple services listed. Each of those services is of a particular type. It's a link set. It's by a different name. The did do can contain a link set within it. It's a different way of achieving the same thing. Great. Use that if you want to. That's fine.

Harley Thomas: So what in your opinion what are the key things that we need to change in that page? I mean there's some things that's factually wrong but is your suggestion that we need to call out there's two different ways it's the structured path approach versus the query string is your suggestion that we need to kind of

Phil Archer: Yeah.

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Harley Thomas: pick one or the other or we need to clearly say that either is sorry I'm probably asking dumb questions I'm trying to

Phil Archer: No. No. I I I think you know in in because we want people to think oh yeah I

can you want if if any standard you want someone to write it and say I can make use of this appeals to me I can see how I can do what I'm doing already and I can do what I'm doing already and be more effective if I follow the standard. That's the the aim if we can achieve it. if because anyone reading it will already have uh established mechanisms that they have. They'll have invested in infrastructure um that of course they shouldn't be asked to throw away.

Harley Thomas: Mhm.

Phil Archer: So if they're reading something they say oh no I can't use this standard because we do X and it says I have to do Y. You want to reduce you want to minimize those. You can't make it completely zero because what we're asking them to do is to build a interoperable global way of accessing um digital product passports as a verifiable credential.

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Phil Archer: I mean that that alone is a is a a big step up from what people are doing today. Um because a lot of system oh there's a web page it's got some stuff on it and that's that's kind of all they're going to get to. So there is already a barrier to adoption which is the um I something I fully support but you know the use of VCs is the way to achieve scalability. I'm rambling here. I want people to read it and think yeah I can do this. I can see what I do now and I can adopt this. And for the bits I don't do already like using verif credentials that I sort of heard of somewhere. I don't know what they are. People keep talking about it. Maybe I should look it up one day. Um, the reason for adopting that technology that I don't currently have is compelling enough that I'm willing to do it. That's the issue. Um, I'm not talking very high level here.

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Phil Archer: So what I would like to do uh and um is if if those so that that that pull request I put in tries to limit it what it does purely to addressing the actual errors. It doesn't attempt to go further than that.

Harley Thomas: Yeah.

Phil Archer: But I wanted to have a chat with you and then see well um if you accept that then I might then offer some more changes on a more editorial line that will be more subjective and very much open to what other people what you and other people

think.

Harley Thomas: I'm I'm more than happy to read that and like I said, I'd almost defer to your experience of the best way to structure this as well.

Phil Archer: Yeah. But then but then C wrote the first one. I rewrote it and you rewritten it again. So something isn't right. Right. We keep not quite getting this right. This is and this is and this is this is just one section and then the other thing is um I don't know how much pressure this hasn't come to me yet or so I wonder if it's

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Harley Thomas: And what's what might be wrong, Phil, is that Steve and I don't understand this to the depth of which you do, and we've needed you the entire time. Maybe that's the

Phil Archer: come to you whether you are getting um push back which I think you will get on uh the types of VC because there are competing um standards around the concept of a verifiable credential. Um have you have you been hit by people saying oh you should be using MDOS, oh you should be using SD job VC whatever. Have you had that thrown at you yet?

Harley Thomas: I haven't received it directly yet, but Steve did flag it. That is something that would likely happen in the future.

Phil Archer: Yeah.

Harley Thomas: And once again, it's something that I don't have a strong opinion or knowledge on, and I would look to other people for guidance on that.

Phil Archer: Well, I mean that you know that there you get into um different ways of doing something. Um the basic concepts are the same. Um but there are three strong contenders for the ways of doing it.

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Phil Archer: Um governments will always run to ISO for reasons that make no sense to me whatsoever. So there's an ISO standard called MDOX. Um version of that is a mobile driving license. Uh which some governments are using and some are not. Um there's this Microsoft driven we hate link data version. Um which is it ITF I think and then there's a W3C version. And although they kind of all do the same thing the same you can draw the same diagram the way that's implemented are not interoperable.

Harley Thomas: Am I right there?

Phil Archer: Um and then there's a there's at least a fourth or a fifth one, you know, left field. Um you know, so uh that came up last week actually.

Harley Thomas: Yep.

Phil Archer: Um GLE is trying to push everyone to use their method that absolutely nobody else uses. Um so and and so it wouldn't surprise I mean so within UNP it says W3C credentials using VC data model version two. um signed by Joseé Kose uh with bitstring status list revocation and you know people are going to disagree with that.

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Phil Archer: They're going to say no you should do this you should do that and I don't know I I hope I really hope the UNP is able to stick with what it's got because it was one of the bits of evidence we use for why we're doing the same. Um and it's what US Customs and Border Protection are doing and I think it's what Syong is doing in Singapore which is not unimportant. So I think that I I'm pretty confident we're on the right track. But there will be people especially when governments start talking about EI as the European identification person citizen identity show me your paper stuff that they're doing. um they will say no no no you should be using this IATF one or you should be using the ISO standard that will come

Harley Thomas: And is that in in your I guess personal opinion or whatever opinion you want to give is that a the UNP should pick a horse as one or do you think that there's room for multiple or multiple car coexist?

Phil Archer: well it's it's hard to say Um, and I think there's got to be a consensus view.

00:28:29

Phil Archer: The Yeah.

Harley Thomas: I guess why are the if they all conceptually do the same thing why why why why if we had one why did someone invite invent the second and the third is it just because humans

Phil Archer: Um, I can think of two motivations for why the others exist. So, the W3C version, I think, is the oldest. I I remember when I worked for W3C uh and 10 years ago, the people behind that work, it was my job to um handle their request and eventually get a working group set up. And that was that was 10 years ago. Um and it wasn't new then.

I mean, they they've been working on it for for some time before that. And then a number of things come in. I'm sure this isn't the complete list, but two things will have happened. First of all, uh, governments, for reasons I I genuinely don't understand, always go to ISO, IEC, um, and people like that for their standards. And so they send a letter to ISO saying, "We want to standard for VCs."

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Phil Archer: And a bunch of people who you don't know who they are sit in a closed room that you can't get into, and they come up with a PDF that they charge you for and says, "This is how you do VCs." And then and and that's it. I I I literally have no idea who wrote their standard. Um it's behind closed doors. No idea. But that that's what governments will go to. So that gives you MDOS and mobile and MDL mobile driving licenses. So that's one possible motivation. I have no evidence for that. Just experiences that kind of thing happens. the other side of things which is the uh the one that the EU is um is is is working on with Eidas and uh people like Christina Yasuda who is one of the smartest people on the planet. My god, she's just so incredibly brilliant. Um uh that's the we hate Jason LD crew. We absolutely hate Jason LD. It should never existed.

00:30:20

Phil Archer: It's an abomination and Microsoft in general has been anti-link data from the start. Uh and no one's quite sure why. absolutely totally viscerally opposed to it. And so they want to do something else that that doesn't that doesn't use it. So, you know, it's about people. That's why it's about people. And so people decide they want to do something else and they end up now with at least three potentially five different ways of doing the same thing. Now, can they come together? Well, there's some convergence. Um, but there's probably a limit to what that convergence is. So, what what should UNTP do? Well, the job of any standards body is to do what its members tell it to. I mean, that's it's it's the consensus of the membership. You can't force it upon people. Um, so we we've we've gone with the same method that that UNP is using. Um, because we believe it's right because and one of the reasons we think it's right is because UNP did it.

00:31:20

Phil Archer: Um, and UNP did it because Department of Homeland Security did it in the US. That was a starting point. It was Annel, John and um and Vinnie um Enciato decided that that was the that was the particular technology they wanted and um American companies obviously working with them in the Silicon Valley innovation program were all working all around the W3C group. So that's that's where they're going. It comes down to people and personal relationships. Um, so that's

Harley Thomas: Is there is there any is there any merit to the statement of if there's other competing methods out there and some of them are developed in a closed environment. I mean the UNP is all about open development. Is that is there any merit to that statement? Could you say well we elect we choose to use W3C under consensus and we choose to do so because it's follows open development and governance which is similar to ours.

Phil Archer: Uh yes, I think so.

Harley Thomas: Yeah.

Phil Archer: I I I personally think so.

00:32:18

Phil Archer: Absolutely. Yes. Um it's it's always the the complaint about um and I and you know so um UN ECE is open, IETF is open, W3C is open. ISO is not it is it is a definition of a closed standards body. They wouldn't say that. By the way, if I said someone from ISO were here, they would object and say, "No, no, we have an open process. Anyone can join." Really? How? Show me how. Oh, well, you go to your national standards body and then you're elected. Yeah. Okay, fine. Fair enough. I don't happen to know anyone there. Right. It's it's an absolute close shop.

Harley Thomas: Okay, that's really interesting.

Phil Archer: Um it's I mean, so if you want to join the is it um National Standards Australia, try it. You'd have to go through someone who knows somebody who would get you in that way. In theory, there's a there's a path to do it, but it's it's bloody awkward.

00:33:13

Phil Archer: It's really hard.

Harley Thomas: It's not quite like joining a Slack channel and the uh public git like it is with the UNP.

Phil Archer: No. Exactly right. Yeah. Exactly. Exactly. So, right. That's that that that's completely in a um now is that a reason to do one thing or another? Maybe not. I don't know. But but it um people seem currently are happy that there are basically three ways of doing it. Um and it could be that one day one will emerge as the really the only way you should be doing it. But we're not there yet. Um if that were to happen, it is years away yet.

Harley Thomas: Mhm.

Phil Archer: Maybe five years before that happens.

Harley Thomas: Yeah.

Phil Archer: And maybe in that case then however the other two would have to adapt. So at GS1 we're aware of that. We are um conscious that we've may that we basically picked one for now but we expect that to evolve and we expect the landscape to evolve and we are aware that we're likely that we we may well have to change.

00:34:14

Phil Archer: Um the classic case of this is um Gly you know Gly the LEI people.

Harley Thomas: I've heard of it, but I can't say anything intelligent about it.

Phil Archer: So they ran with a particular way of doing VCs um which uh however technically brilliant it may be and I have no reason to think it isn't basically it's only them doing it. So then they turned up at the Department of Homeland Security to take part in their program and DHSS said uh no you've you've got to use this method. They said no but we've got this method. They said no no you've got to use this method. They basically had to go to trade verified and get help to put their identifiers into a VC using this other system that everyone else uses. Um, and we're very keen to not follow that path. Uh, or rather not not be caught out in the same way. No, they they invested in X and everyone was using Y. And they turned up at W3C saying we want you to standardize Y. And we said no.

00:35:19

Harley Thomas: I feel is the world any better? Do we have more transparent trade because of it?

Phil Archer: No. Yeah.

Harley Thomas: Who who is aware of this besides people that are in this somewhat niche ecosystem?

Phil Archer: Absolutely niche. Totally totally niche. Yeah. It's a very niche world. Absolutely.

Harley Thomas: I think you you could you could poll a thousand people on the street that you've just spoken about and I don't think anyone would have any idea.

Phil Archer: But of course not. No, absolutely. Does it work? Yeah, it works. Great. Okay.

Harley Thomas: Carry on.

Phil Archer: I mean, it just Oh, dear. I had um I was asked to run a session on QR codes last week and um uh can we sort of make it so that if you wanted it, the browser would render any hyperlink as a QR code rather than having to so you could you could click it. Yeah. But you it could also appear as a QR code that you can scan on so you get from one device to another.

00:36:18

Phil Archer: Um and then can we also make imagine a web page right?

Harley Thomas: Wait, hang on. Sorry. Could you Wait, sorry. Oh, you lost me. Could you explain that? What do you mean?

Phil Archer: You're displaying a web page on your laptop and uh there's a hyperlink there but you want to open it on your phone.

Harley Thomas: Yeah.

Phil Archer: So, could you make it so the browser would automatically, if you asked it to, show that hyperlink as a as a QR code that you could then scan with your phone and get it from one device to another. Um, right.

Harley Thomas: Kind of like how how Apple has like the you can copy a link on my MacBook and then I can paste it on my iPhone. Something like that, but make it Gotcha.

Phil Archer: Yeah. Yeah.

Harley Thomas: Yeah. Yeah. There.

Phil Archer: Um, and can you make it so that um the URL would show as a QR code that you could scan or you could just click it?

00:37:06

Phil Archer: Somebody from Apple that said, you know, you can do that now on Safari and people with iPhones, which is not me. Um, so I made a little page that just got a QR code embedded in a web page. And yeah, if you long press on a QR code that contains a URL on Saf only on Safari, only on iOS, if you long press on that, it will open the URL. So because the the browser has passed has has decoded the QR code and created the URL from it that you can then click which so we discovered that last week in code.

Harley Thomas: Yeah. So, is it is that going to be something that's more widely adopted and standardized or

Phil Archer: Well, I don't know. I'm going to play around with it. I'm going to make a little thing to um you know show links as QR codes or um hover over it and the QR code would open. I'll do something like that. I think just for a you know a bit of a bit of coding to do one day.

00:37:57

Phil Archer: Um and what Apple is using is there is a standard API for decoding barcodes, multiple barcodes. Um so I have to look at how they've done that. Um and see if you know just have have a page that demos it and see if other people want to do the same. But that's a really geeky thing. It's good fun.

Harley Thomas: You're just a tinkerer.

Phil Archer: Well, given a chance, time is always the problem, isn't it?

Harley Thomas: Yeah. Yeah. I agree. I agree.

Phil Archer: So, okay. So, um are you if if you're minded to accept that pull request, then I will then go through it again. Uh, I'll check that I didn't miss anything factual and I'll then probably offer you a slightly a much more subjective thought request that would require, you know, the people to think about and say, are we okay with this? Um, again, I'm going to make sure that I I want I want people who don't like GS1 to be able to read it and not object.

00:38:54

Harley Thomas: Mhm. Mhm.

Phil Archer: Um, that's the the line I mustn't cross. Um, but I also want people who do

like GS1, which is quite a lot of people, to be able to read it and say, "Oh, yeah, I can use this. This is what I've got already." That's

Harley Thomas: Yep, that sounds good to me.

Phil Archer: that's the line I'm trying to get to.

Harley Thomas: Yeah, I appreciate where you're coming from, but it all sounds good to me.

Phil Archer: Well, you never know. There are other people you could talk to who would say it's it's awful and GS1 should be destroyed. So that's life. We're used to it.

Harley Thomas: Hey, do you know Peter Carter?

Phil Archer: Very well.

Harley Thomas: Yeah, you can ask Peter about me. I'm a GS1 fan, so it's all good.

Phil Archer: Okay.

Harley Thomas: But not too much of a fan. I'm trying to try to walk out line just like you.

Phil Archer: Yeah. You got to walk a line because when I first saw it, I thought, "Oh my god, it's got on every page. Oh

00:39:53

Phil Archer: my god, no. No, no, that's not going to work. No, this is people are going to throw huge exoset missiles at this. We can't have this. And it was me that took all the references of GS1 out.

Harley Thomas: Yeah. Yeah. Yeah, I'm starting to learn that dynamic as well on this journey. I'm just listening and learning and trying to help where I can every two weeks on a next Thursday will be the uh bit of next one.

Phil Archer: So um how often does do you do you meet with this group? Every week. Every two weeks. Right.

Harley Thomas: But if you're if you're keen to to contribute heavily and stuff, I'm more than happy to meet weekly.

Phil Archer: Yeah.

Harley Thomas: Um, yeah, honestly feel it's just been having people to actually help for the most part. It's just been Yeah, pretty tough.

Phil Archer: No. Yeah, I understand. Yeah. So, I'll be I'll be on the call next Thursday. I'll be in my motor home next Thursday morning. Um because I like Yes.

Harley Thomas: What around around the

Phil Archer: Yes.

Transcription ended after 00:40:54

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