



**HIT Standards Committee
Architecture, Services & Application Program Interfaces Workgroup
Final Transcript
March 26, 2015**

Presentation

Operator

All lines are bridged with the public.

Michelle Consolazio, MPH – FACA Lead/Policy Analyst – Office of the National Coordinator for Health Information Technology

Thank you. Good afternoon everyone, this is Michelle Consolazio with the Office of the National Coordinator. This is a meeting of the Health IT Standards Committee's Architecture, Services & API Workgroup. This is a public call and there will be time for public comment at the end of the call. As a reminder, please state your name before speaking as this meeting is being transcribed and recorded. I will now take roll. Arien Malec?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Good morning and/or afternoon.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Hey Arien. David McCallie?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Hello.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Hi, David. David Waltman? Gajen Sunthara? George Cole?

George Cole – Principal Scientist, Community Solutions – Allscripts

Hello.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Hi, George. Janet Campbell?

Janet Campbell – Software Developer - EPIC Systems

Hello.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Hi, Janet. Josh Mandel?

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children’s Hospital

Hi there.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Oh Josh, you are there. Okay, good. And from ONC do we have Debbie Bucci?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Yes, I’m here.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Hi, Debbie. Okay and I’ll turn it back to you Arien and David.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Excellent. We had a really good meeting on the HIT Standards Committee; I hope everybody was able to tune in, despite the last minute rejiggering of the agenda, which I think worked out. And I know a couple of you at least were able to dial in and listen to the work. I think the work was...I think it’s safe to say the work was well received and I don’t actually think we got much in the way of suggested changes to the framework.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Umm, we did get a little Arien; I went back and looked at my notes. The one substantive comment, well, we had several...we had many good comments, but the one specific suggestion was from Dixie who suggested adding...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yes, that’s right, sh...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...some more security authentication/authorization cont...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

That’s exactly right, yup.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...to the framework.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Right, so she wants to know how identity and identity management fit in with the hourglass. She wants to know how security policy fits in, and I don’t know that we need to fit everything into the hourglass, but there may be some things that are foundational that we’re going to need to fit in and at least address the rest...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, like...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

...as important considerations that are handled either up the stack by the data sharing arrangement or truly handled at the bottom of the stack.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, she sent a slide, I don't know who she copied it to, but we could circulate it around with just some suggestions. They were, I think, very quick suggestions. But what I was...my reaction to it was that they were good suggestions, but they were in some cases a mix of things that are probably not really composable per se, but are non-functional requirements outside the stack, like the need for a certain level of assurance and things that would be independent of the actual technology orchestration so, I think there's probably a few things that she suggested that we should consider at some point when we try to formalize this more, but some of them were concerns that are really probably not composable per se.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Right. As I said, it could be done at the level of the data sharing...so there are some things that truly are composable and some things that need to get addressed at the data sharing arrangement level.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Right.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

And I think some specificity there would help a ton.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah. So I can certainly circulate that after the call to the group and we could talk about it at...when we get to the thought of our transmittal letter. And then the other comment that I made note of was more of a question or an assertion/question from Leslie Kelly Hall questioning whether we were considering orchestration cases that would engage the consumer and our response was yes, at a minimum the smartphone SMART App...the smartphone version of the SMART App would be one such possibility, and of course there may be many others in the future, but there's no intent to make this anything other than generic for all these use cases, including consumer.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

I did note that when she raised that question I looked at our examples and our examples were all physician specific, so it might be worthwhile looking at...maybe do another slide looking at consumer engagement or patient engagement or person engagement, whatever the right term is that looks at the kinds of applications and orchestrations that are applicable for those cases, just to make sure we've got completeness...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, I agree.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

...and are, yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Those suggestions came off the top of my head probably mostly and that's just my habitual way of thinking. I don't think I...I mean, there were a number of other comments that were basically endorsing or praiseworthy or whatever that people thought it was a good idea. I don't think there was anything else that jumped out at me as a suggestion.

Janet Campbell – Software Developer – EPIC Systems

Can I make a suggestion just based on the slides? This is Janet.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Of course, that's why you're on the workgroup.

Janet Campbell – Software Developer – EPIC Systems

It's on slide 4 of the deck that we got today, which is the hourglass, and I think it was actually my request originally, but it wasn't exactly what I meant to say. As far as I can tell, if I'm understanding this correctly, vendor implementations should be the hourglass widening back out again.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yes.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, we thought about that Arien and I both...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

We...it was a visual...yeah, it was definitely a vis...you're much better at the visuals, Janet, than I think either David or I are. But when I put a wider base, it just looked...it did not look good.

Janet Campbell – Software Developer – EPIC Systems

Would you like me to do your visuals for you?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

I think we were running into, I will say that we were running at that point into the lack of PowerPoint and graphic abilities of David and myself.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

And time, there was just a quick hack to capture your thoughts. But I think when we described it verbally; we tried to make that point clear.

Janet Campbell – Software Developer – EPIC Systems

Cool.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

And...but I agree, it needs a better visualization.

Janet Campbell – Software Developer – EPIC Systems

I can...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

I mean, I'm comfortable leaving it off and just...you know, leaving it off and telling the story, but...

Janet Campbell – Software Developer – EPIC Systems

I can make...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...take a shot at it, please.

Janet Campbell – Software Developer – EPIC Systems

Okay. By the way, if you get a chance to stop by the outside of our booth, you should check out...I'll show you where my slides are, my amazing slides that I did last night at 2 o'clock in the morning. The other question that I was going to ask or actually more of a request, and this is for the ONC folks on the call and the facilitators, when I provided my comments, I wasn't aware that they were going to be made public. I don't think I said anything that I really care about, but sometimes if I'm writing for an internal audience I'm more likely to be blithe and not thoughtful. So, just next time, if we get a chance, if stuffs going to be made public that we're writing, just if we know that, that would be awesome.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

I think it actually works...this is Arien. I think it actually works the other way around because this is a...this was a decision that David Blumenthal made really early on that all of the work...all of the FACA deliberations were to be made public.

Janet Campbell – Software Developer – EPIC Systems

Oh, that part was okay, I just thought we were collecting all of our thoughts internally here and then we were going to write the workgroup's consensus.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Gotcha.

Janet Campbell – Software Developer – EPIC Systems

I just didn't know. So...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, Michelle, do you have a perspective there?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Which comments are you talking about Janet? These are your written response...

Janet Campbell – Software Developer – EPIC Systems

The ones that George and I threw on the actual questions for workgroup discussion.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Okay.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Oh, I see; I think that's actually totally fair if the...if we're taking notes and capturing your comments, it's probably worthwhile checking with you to make sure they actually are reflective of your actual opinions as written.

Janet Campbell – Software Developer – EPIC Systems

If we could, that would be good.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

But...

George Cole – Principal Scientist, Community Solutions – Allscripts

So it's George, could shift the subject for a second back to the presentation to the Standards Committee. The only other note I made, I don't know what we do about this but we were challenged just slightly about where's the competitive model; do you remember that?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah.

George Cole – Principal Scientist, Community Solutions – Allscripts

So that's the only other comment that I made note of that came up that other than the glowing remarks that we received from everyone else, where's the competitive come...and I thought the answers were good, I don't know that we need to address them in the slides, but...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, I mean I recall answering that basically saying that this is the basis for standards around which competition for implementation and efficiency, etcetera would occur and that having agreement on the standards level was, in fact, the part that enabled good competition to occur. But...and I think it was Cris Ross who asked the question, or at least he was one of the ones who asked it and he nodded his head like that made sense to him. So, I don't know if there were some other aspects that we should try to capture in a part of our write up; thoughts of others?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, it might be worthwhile...this is Arien, being very deliberate about saying the intent is actually to create differentiation in two different areas; number 1 is, differentiation in terms of applications that use the core and orchestration layer and number 2, in terms of the workflow and user experience associated with vendor products that implement the core and orchestration.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, I mean the Internet is a wonderfully competitive space despite the fact that everybody uses the same building blocks...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...seems to be the analogies here are not too terribly hard to come by.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

So people compete to build a better browser and people compete to build a better Amazon or Apple or what have you. I think somebody else is trying to get in, or maybe it was just the background noise.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Yeah, we are getting terrible feedback, I'm not sure.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

George, does that cover your concern?

George Cole – Principal Scientist, Community Solutions – Allscripts

It did, I just...just as I was looking back through my notes on the...and by the way, congratulations both of you all because it seemed to me there was great recognition of the work that was done and I...there were so many positive comments from some people that I hope you came out really smiling out of that meeting.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, I felt really good that it was well received and that people seemed to get it, too. So, that's half the battle is just saying something that makes sense to people.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

I wondered going in whether it was just going to be like okay, whatever that was, whatever the hell you were trying to say, that's fine and I was very pleased that, as David said, there was both recognition of the point we were trying to make and then appreciation of it.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

No I think it worked...

Janet Campbell – Software Developer – EPIC Systems

So my question is, do we have to take this back to the Policy Committee, because that might be a different battle.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, yeah, no, this...well I think now that we have the API recommendation in the NPRM, the real debate will start, which is, okay, so how do we get there?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yup.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

And is this the right way to do it? And is the NPRM too aggressive, not aggressive enough, they should have said nothing; I mean we're going to get to that interesting discussion soon.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

And that probably gets to our agenda for today.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

But I do want to...before we shift to the agenda; I do want to...I want Janet to acknowledge that I got rid of those little funny flangey things on the hourglass.

Janet Campbell – Software Developer – EPIC Systems

I did notice that actually, I got to see it before like all of the good stuff, but I got that slide and I was like, oh good, they're gone.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, so, I followed up on your suggestion. They have been blocked out. Okay, so agenda. Arien, your turn.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

All right, can you go to the next slide? This is who we are, we're going to add more people, we're working on getting more people to get back to the good balance of interest that we started with. And let the record show again that the folks who are here are the folks who self-selected to be here, not the folks that we...this isn't the representation that we selected in at the very beginning. All right, next one.

This is where we are. So, in terms of agenda, we...we're going to...I think what we decided to do is prepare a transmittal letter that represents the architecture concept, effectively the material that we presented, along with our high level comments on the interoperability roadmap. And then meld our detailed comments of the interoperability roadmap into what's likely another transmittal letter that will get...that we'll fold in our stuff and the Content's Workgroup and the Security...Transport & Security Standards Workgroup and there are some other workgroups...Implementation Workgroup and other workgroups that are working on...that also presented, that are working on other comments on the interoperability roadmap. So, we're going to do a two-part transmittal, one that focuses on the material we presented and then another that kind of melds our comments in with everybody else's.

And then we get to the fun stuff where we will start to dig into our assignments for the NPRM. We have yet to receive our assignments. I expect that there's the section that deals with APIs that may or may not have something to do with our workgroup, so to the extent that we have time today, we will take a speculative guess that that will get assigned to us and just hope that that actually does get assigned to us. We'd also expect that there will be other comments or areas of the NPRM that'll get assigned to us.

And we have a little bit of a death march coming up because we've got effectively 3 meetings to get through the Certification NPRM and present comments in May. There's a tension between good NPRM comments from the Standards Committee and providing commentary to ONC in a timeframe that allows them to put together a final rule and get it through clearance. I would hazard a guess that we'd all prefer to give really good commentary to ONC, particularly those of us who have to implement technology are also concerned about timeline. So to the extent that we can do both and hit a May timeline, that would

be great. To the extent that we have a hard stop between good commentary and May, it's possible that we'll get some additional time to do some commentary, but I think we should be shooting for May.

So I'll just pause there and see if everybody understands what we're signing ourselves up for. So in April we're going to put a transmittal letter together that'll represent our architectural commentary. We'll also submit to be put into an omnibus transmittal our detailed commentary and then we will promptly turn and move to our sections of the NPRM where in May hopefully it'll get some kind of uber-reconciliation process so that we can put together a transmittal letter to ONC relative to NPRM. And I will pause there and see if that all makes sense.

George Cole – Principal Scientist, Community Solutions – Allscripts

It's George, it makes sense, but besides your leading comments about the section of the NPRM, it might be appropriate, can we do more to just define our role here or do we have to wait...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

We have a meeting...

George Cole – Principal Scientist Community Solutions – Allscripts

...for an assignment?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

...yeah, we have a meeting on Friday where I would anticipate that we would get our assignments and then start reviewing those assignments in...it would be nice actually to give our assignment out to this team prior to April, so we actually come in with April with some more detailed work relative to our assignments. But we're still...as I said, we're still waiting on getting that final list.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

But once we have that list, is there any reason that we can't circulate it to get everybody primed for the next meeting, Michelle?

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

No. So Arien's trying to...so, just so everyone knows, we're having an administrative meeting tomorrow with the Chairs of all of the Standards Committee workgroups and handing out assignments and just making sure everyone's okay and the two Johns will be on the call as well. We'll make any final tweaks based upon that meeting and we can certainly share those with you all so you know what sections of the roadmap to be focusing on, because there's a lot of reading and we want to hopefully minimize the...of course you'll read it all, but where you need to focus, we'll try to minimize.

George Cole – Principal Scientist, Community Solutions – Allscripts

Good.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

So we'll...in other words, we'll know what our assignments are as soon as they've been settled.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yes.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

We don't have to wait until the next meeting.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, so we'll hopefully know on Friday, we'll get you out that list on Friday and then I'd actually propose that we have some organized way of collecting up front comments on our sections, maybe in kind of priority order so that we can hit the ground running in our April 9 meeting. Okie doke, that's our timeline. The next slides I think are just a reflection of what we talked about with all the pretty pictures, including the one that Janet didn't think was so pretty here, slide 4.

Next one. Slide 5, and here's the one where we were egregiously physician centered. Slide 6, provides general recommendations. I think those are...I don't think we put all the, the entire slide deck in, but if we did, we'll keep going. Next slide, we did. All right, next slide. And the next slide. And the next slide. And one more. Okay. So now we come to the section where we are going to collect, so again; two-part work effort. One part is to draft a transmittal letter, what we're proposing to do is draft a transmittal letter based on that previous content we just walked through, send it to all of you and have you do distributed edits so that we don't have to wait until the April 9 meeting...we don't have to spend a lot of time in the April 9 meeting focusing on reconciliation of the transmittal letter.

Just giving timing, it's probably going to...we've got...I think we all have spring breaks and all those kinds of things that are coming up so I'll try to work on it maybe over the weekend and see what we can do to get it out early so that we have something to work on. And then we will today work on our detailed commentary for the other part of that transmittal, which is the omnibus commentary from the Standards Committee, which I think...these are our charters...our charges and then next section or next page, rather...all right, I'm not seeing the slide move. If you haven't moved it, can we get the next slide?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

It's moved you're just...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

It moved and my network dropped, so, David, if you could take over.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

It doesn't look like the right slide deck. Debbie.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, I know...you're, yeah. If it is, I can't see it because my network dropped so David, if you could take over.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

I'm trying to figure out what this is.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

This doesn't look like the correct...hold on. I had pulled together, we had pulled together the comments from the last time and there were some...this is Debbie speaking, and there were...we got like a third of

the way through the individual comments and we were just going to finish up for the roadmap. And that's what we're supposed to do.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Right.

Janet Campbell – Software Developer – EPIC Systems

Oh, so it wasn't made public and...I thought that was still part of your presentation, Arien, but that's...

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

No, no, no, no, no.

Janet Campbell – Software Developer – EPIC Systems

...now that I see that, it that makes sense. Okay, well never mind, that's fine.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, that's why I was wondering what you were worried about, that's why I was lost. But, yeah now, there we go, wait.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Now it's pub...but this is some of comments from last time, from the last meeting when we kind of combined them together.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Right.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

So the ones that are in red is as far as we've gotten, so we could move through the first couple of slides and then there's a bunch of blank spots to maybe comment.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Does that help?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah and I propose, by the way, that what we do is just capture our comments and then at some point we're going to need to draft this into a tighter...

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Synthesize it.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

...consensus statement. Yeah.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Okay. I think you can go to the next slide. Keep going, the next slide, once we get past the red, yeah, we passed that. Next slide. Okay, I think if you go back up one, I think we stopped at 5. Health IT developers should work with the SDOs to develop standards for interoperable electronic health devices.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

No, I think we discussed this one and our consensus was that this is a fine thing, odd to call out particularly electronic health devices and to the extent that you're talking about electronic devices, we...there probably should be coordination with FDA and device manufacturers.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

I'm curious to know what we think the electronic health devices means, vis-à-vis things like Apple HealthKit and the ability to talk to devices, personal wearable devices versus Samsung's approach versus Vadic or Validic or whoever that other company is that we just did a deal with that has devices. Is there some thought here that we should...that there should be more standardization at the level of these personal devices or do we think that's a don't care or is that not what they're asking? I'm a little confused.

George Cole – Principal Scientist, Community Solutions – Allscripts

David, it's George; I thought that lots of discussion was needed around devices and great topics, but it just seemed like this was out of place in terms of this whole section K and the APIs.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Um hmm. Yeah, it's certainly not an EHR concern...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

So maybe what we should...it is an EHR concern to the extent that we want data that's collected from electronic devices to flow into health information technology, health IT...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Right.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

...that in an interoperable way to do analytics and other capabilities, I like the framing George or David, that you just made in terms of can we look at the different considerations that apply to personal health devices versus regulated medical devices, regulated medical clinical devices and then I get stuck in terms of what...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, I mean I think it's a complicated question.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children’s Hospital

This is Josh; we’ll certainly be getting into more detail on this when we talk about the NPRM as well, given the requirements for returning patient data back into certified health IT systems.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Right.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

And then I guess...so just the other piece here that, so I completely agree with this. The other piece here is, I don’t know what the policy requirement is and maybe we should just frame, we assume the policy requirement here is to allow more interoperable collection and use of data...sorry, more interoperable use of data that is collected on both regulated medical devices as well as consumer devices and we concur with the thought.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

But do we think that, I mean, the question is specifically asking whether health IT developers, which is all of us...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...should work with SDOs, who would presumably work with these to develop standards for devices, health devices. And I’m not aware of that conversation having gotten a lot of discussion.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

That’s a great point.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

I mean, it’s...at the moment I think it’s very...it’s an unstandardized space and a couple of the major platform, you know, phone platform...smartphone platforms have attempted to impose some standards from the phone side and then there are vendors out there who have gone out and created their own tools to try to standardize...independent vendors. And then I assume that each of us EHR companies has done idiosyncratic device interfaces on a case by case basis, so I think it’s kind of a Wild West of not much standardization.

Janet Campbell – Software Developer – EPIC Systems

Well, I mean I think, George kind of points out that a lot of this you could do by HL7, I mean, there are standards, Continua would say that there’s work going on, although, I don’t know, we’re not a member.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, yeah, we’re not very active in it either, so...

Janet Campbell – Software Developer – EPIC Systems

But I don’t think that means that ONC has to step in.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Well that’s the question...here.

Janet Campbell – Software Developer – EPIC Systems

I think this thing...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Well, it's not even...this doesn't even call for ONC to step in...

Janet Campbell – Software Developer – EPIC Systems

That's true.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

...this calls for health IT developers to develop stuff.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah.

Janet Campbell – Software Developer – EPIC Systems

Although I don't think I know that I would call necessarily for SDOs if there are de facto standards happening already. I mean, I don't know that I want a standards organization to go in and try to standardize HealthKit because then that's just another interface that we'd have to implement that I would doubt that Apple would actually implement.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, certainly Apple would not be very receptive to that. I mean, it's an interesting question. We're working hard to create APIs to improve interoperability in the worlds that we spend most of our time in, but we're basically sort of suggesting here this consensus it seems to me is, we don't think that you need to carry that down to this device level, which I'm happy to say, if that's our consensus, but it is a little bit of a why one but not the other? Maybe it's just too much of an immature market to even start thinking about that.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

Yeah and I think another way to look at it, not that I'll argue too strongly in favor of this view, but it...one way we could look at it as well is in this device space, even if there's not very strong interoperability and consistent APIs, there are strong developer friendly APIs with software development toolkits and open source reference applications and tutorials and stuff. We've got the makings of an ecosystem where developers can jump in and start building stuff, perhaps more than we've seen, at least among some of the traditional EHR products, or at least until recently. Many of these devices are starting up in a world where that's just sort of the norm.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Well and they're useless unless they expose those services, right, unlike...I won't say useless, but their utility is radically diminished without their APIs...

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...unlike the historical trends that we've come from.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

This is true, but we're focusing on the personal devices space and that's not actually what this text says, this is electronic health devices, so this would be standards for your glucometer and your...maybe your Fitbit, I don't know.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Well yeah, I don't know why it wouldn't...I'm not aware of a formal definition of that term.

Janet Campbell – Software Developer – EPIC Systems

I think that one of things we could do here is call out that this is a really broad market and actually the way its worded right now it would even maybe cover things like in-hospital devices; health I guess is sort of they're signifier that it's patient facing. But just say, half of this space is probably more open to regulation and standardization and others are used to working in more of a market.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, this is a...this is one of those things where you...for the regulated medical devices, you've got all the tools you could ever need, the regulatory tools that you could ever need, if you really wanted this to happen, it would have happened already, A. And B, I think the gist of our comment here is this is a rapidly evolving space so we actually disagree with the recommendation that IT developers should work with SDOs to develop standards because we have yet to have the maturity of practice where that discussion is useful and profitable. Not profitable in terms of money, but profitable in terms of activity. Oh my goodness Janet, look at that.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah it's nice I just sent you a thank you. Sent all of us a thank you, very good. So Arien, say that...so, this is a huge space, right, ranging from regulated...FDA regulated devices to the frivolous...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Right. I...so...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...person device and everything in between.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

...I have two perspectives on this area. In the regulated device space, FDA actually has all of the regulatory tools they need to make regulated medical devices interoperable. So if it was an important policy consideration for them, it would probably already be done. B, in general, our recommendation is that this is an emerging space where we have yet to see...everyone's doing something, we have yet to see standardization of practice or consistency of practice, which makes it hard to recommend standards development activity and that we would therefore recommend waiting until we have more consistency of practice before we start standards development activity.

And I guess third comment is that the act...many of the actors who are getting involved in this space actually have, as part of their mission and business, a drive towards interoperable APIs and so it may be that we have the underlying market trends that are developing anyway and increased efforts to get SDOs involved may actually have a counterproductive impact on data liquidity.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

So the timing of this question too notices 2015-2017, I...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

That's right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...so we're certainly saying that in the near-term this is an immature market that should mature further before ONC should be pushing SDOs to engage. Now there is the West Health effort on device interoperability. I think their focusing initially may be more on bedside devices, but I don't know if they're going to try to sweep into this space.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, again, I think that falls back to the general comments that we were saying, it's a rapidly emerging space and it's not actually at a level where it makes a lot of sense to...we haven't standardized practice so it's hard to standardize standards.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Hmm. All right, let's try it. I think hopefully Debbie you and your team have captured some sentiment there or...

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Yes we have, thank you.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Okay. So let's go to the next slide and see what the next questions are.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

There were no...for stakeholder input for 2018 and beyond there was no comment on either section, so I think we just hold with its just too immature to do anything yet. Do you have any comments for looking at...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Well this would be...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

So this is the question, expand interoperable health IT and users.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

This is APIs; actually, we already provided this commentary in our recommendation section, so I think we just refer back to our recommendations transmittal.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Okay.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, to the framework and recommendation; I think that the framework governs our proposal...the...to be written transmittal will govern...will cover our proposal for how this grows over the remainder of the decade of interest.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Okay. So it sounds like the next slide.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

And then, achieve nationwide...I guess this is learning health system, right?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Yes.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

I keep thinking left-hand side, because I'm one of those computer compiler designs, anyway. Yeah, I think we do the same thing, refer back to our framework.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Sounds like the next slide, please. Okay, it says, ONC will identify, and health IT developers should adopt a minimal set of common transport standards to enable priority learning health system functions. And then the second one is SDOs should update standards and health IT developers should adopt standards as needed. And so...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

I will shut up and not jump to my first thoughts here, I'll...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Well I'm not going to.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Okay.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

I mean, I think L1.1 is covered in our notion of core composites.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

And maybe go to the next slide, I think it might be broken down by any comments that were made.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Oh, okay, here we go. All right. Yeah, good. Yes.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Do you want me to read them or...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

No, that's good.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

No, I mean, let me just say my thought before I read them so it's my independent thought. This notion of minimum set of common transport standards, that's this parsimony of core composables, right? Or parsimony or orthogonal...set or whatever language you choose to use.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, pars...that's right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

So this is, I think our framework...this is the nugget of the idea in the framework.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

So where I was going is, I think we endorse the second part of the clause...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Um hmm.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

The first part of the clause implies an ordering and role of government that I think is inappropriate and actually is inconsistent with the S&I Task Force recommendations transmittal.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, the word identify is sort of a vague phrase there, it doesn't say ONC will drive, but you could take that reading of it, right?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, I take this as ONC is going to tell us what minimum transport standards to do and health IT developers should adopt them.

Janet Campbell – Software Developer – EPIC Systems

Sounds familiar.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah.

Janet Campbell – Software Developer – EPIC Systems

I'm going to second Joel's...not Joel's, I'm sorry, George's comment there as well with the whole transport thing, definitely. That was...we...that made us...was difficult for us, too.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yup. So I think this is generally consistent with our...the second part of the clause is generally consistent with our framework, we refer back to our framework. We would suggest a different approach to the ecosystem and particularly the role of government under which that framework will come about. Should we go on to the next section or next question?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Okay. The next...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Oh no, next question.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

...extend it out, yeah.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Oh yeah, it's the same thing. So, ah, I would note that, what's the difference between this one and the previous one?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

The timing.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

What's the difference between 3 and 2?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

The timing.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Oh, I see. Keep doing it.

George Cole – Principal Scientist, Community Solutions – Allscripts

Keep on keeping on.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

I think in the 2020-2022 we should avoid stakeholder input.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah. Do we want to say something or maybe we've covered it already, this notion of the sort of iterative process of SDOs engaging with market as markets identify areas where standardization is needed rather than SDOs just trying to drive market?

Janet Campbell – Software Developer – EPIC Systems

That's the question.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Well I think that's already in the S&I Task Force transmittal.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Well I don't mind repeating it.

Janet Campbell – Software Developer – EPIC Systems

Yes.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

We can repeat it and then I think we...yeah, so maybe we can repeat the recommendations of the S&I Task Force transmittal and then we can refer back to our framework because it actually provides more guidance for the 2018-2020 and 2021-2024 period in terms of finding and standardizing additional orchestration patterns that provides I think more actionable guidance for adopt standards as needed.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

So this is Debbie. Is the workgroup going to suggest comments for this area for the roadmap based on the framework?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

I think we...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

I think the sense of the...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Go ahead.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Go ahead. No, I think the sense of the...I'll just be selfish and go. I think the...just to speed it along, I think the sense of the comment is number one, we're going to refer back to the S&I Task Force recommendations relating to the lifecycle and ecosystem, and in particular point back to the probably inappropriate role of government for ONC to identify and tell HIT developers to develop. And number two, that SDOs say and HIT developers do violates at least one of the core tenants of those recommendations.

And I think number two is we will point back to our other transmittal that provides much more determinative and I think useful guidance for what should happen in the 20...in each of these periods relative both to transports and APIs in particular, relative to transport identifying orchestration patterns, which themselves rely on, for example, profile uses of OAuth 2 and OpenID Connect.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Okay.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Does that make sense?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Yup, thank you. Next slide, it looks like, please. Okay, we we're going to bring in 3 different sections, the...just go to the next slide as they break them down, please. Public health agencies should converge on the use of standardized web services to support data submission as well as data query from registries and other systems. And this is for 2000...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Oh yes please. You know, I...I'll refrain from comment here; I'll reserve my comment for just a bit.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

So what is everybody interpreting the notion of standardized web services to mean? Where does that phrase come from?

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

Yeah, so in my generous reading of it what I hear is some well-specified way to do it using some kind of HTTP API.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

I think we should go back to our general recommendations...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

...where our general recommendations say, A, if there is a method that is already in wide production use, keep doing it, but minimize...if it's not aligned with the core and composables, then minimize changes to reduce friction. B, if it is a new method or use of a method that hasn't been appropriately adopted and used, seek to achieve that in terms of core composables and orchestration. And I don't think this is any different from anything else.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yes, that's the whole goal, I would say, is to make public health no different than any other use of the core composables. It's just moving data in an after proper authorization using the standard profiles and services.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

But to reflect on what Arien just said, I mean, let's say at least in some public health reporting scenarios, there are well established good working practice with HL7 version 2 messaging, between various sites and a public health center; the implication is, well let's just keep doing that. And then at what point or in what context do we think about introducing these core composables as an adjunct way to solve the problem or a forward looking way or maybe just an alternative?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Again I think that we already gave that guidance in the roadmap; our guidance was, in the 2015-2017 way, if you've got something that's already in wide use and widely adopted, keep doing it but minimize changes to it. In the 2018-2021 period, develop and encourage appropriate transition to the approaches based on core and orchestration. And that in the 2015-2017 way, if you've got a new thing that you want to do or you've got a thing that's not already widely adopted, map it to the core and composables.

So as examples, if you...if there's, and I don't know if there is or isn't right now, if there's wide adoption of the CDC's simple web services for immunization query with HL7 version 2 payload, keep doing that. But if you...if there isn't or if you have a new use that isn't widely adopted, map it to core and composables.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, so to give an example of a new service that could be developed, if there was, for example, a desire to service...to deliver a nationwide forecasting service from an authority such as CDC or a state level authority for immunization forecasting catch up that can be done now with FHIR pretty adequately. So rather than try to squeeze it into an HL7 v2 message, do it with core composables and whatever is necessary to make it work with FHIR.

That to me would be an example of how to...you know, the distinction between stuff that's already working, submission of reportable conditions and the like with HL7 2.x state by state, you wouldn't say, go tear those out. But if you're going to do something new that you hope to get widespread achievement for or adoption of, do it with core composables. The CDC could use a SMART App approach to push out Ebola alerts recommendation and capture critical data that changes on an hour to hour basis because it's a SMART App; that kind of approach for new things. Does that make...I mean, is that what you're saying, Arien?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

That's exactly what I'm saying and if there's a new...so as another example, if there's a new reportable condition rather than create another Consolidated CDA document that represent the reporting approach for that new reportable condition, instead do that in FHIR and use our peer-to-peer orchestration to enable the transmit and send.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yup. So I think our generic answer here is we've established a general pattern for preserving currently functioning APIs with a high level pattern for cross-over to core composables in our referral...in our transmittal letter, so we refer to that. It may well be...

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

So in that...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...the case that at some point we need to enumerate specific recommendations for some of these other areas though. I mean, we proposed some notions around Direct and document query as examples, but we didn't cover the waterfront, obviously...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yup.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...and that could come back to us for something to do, I don't know. Maybe they want to give that to some other group.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Exercise left to the reader.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

One thing we might want to think about in terms of that generic kind of pattern is, at least describing some role for adapters or bridges, you know, that let a service provider who already has something like an HL7 v2 messaging feed up and running, wrap a new FHIR endpoint around it so clients that want to connect in this new way can. I don't think that's something we've explicitly tried to describe, but that could be part of the sort of cut-over process.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, good point. We did cite the MHDv2 as one way to do that exact thing for the XDS style registries...

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

Right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...wrapping some sort of arbitrary FHIR around it so you can preserve your registry service but expose it with HTTP based services.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

Yeah, so that's another example. I'm just saying if we're saying we've got a generic pattern for these kinds of cutovers that applies to...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, that's a great point.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

...the EHR world and public health.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, let's make sure we capture that in the transmittal Arien, we can...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

That is a great point, let's create a gen...yeah, let's create the generic process and then apply the generic process to Direct and XCA and...so that it truly is...the rest of them truly are exercises left to the reader.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

So we've got orchestrated orchestrations, is that what we're talking about here?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

We've got meta...

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children’s Hospital

We can do one more.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

...and orchestration transmission.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children’s Hospital

We can do one more.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

And you think you could do...

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

But not to...this is Debbie, not to prompt you David, but I’m reminded when you’re talking about wrapping with HTTP base, that’s happened today, but are you referring to going from the highly orchestrated to the loosely coupled?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Well, I’m saying that as vendors get comfortable with exposing and consuming FHIR services that have been managed with the core composable authorization methods, whatever we come up with for peer-to-peer and brokered and OAuth for personal authorizations, that as they want to move older interfaces into that new approach, you could wrapper things, like Josh was suggesting, and so you could use a FHIR...a peer-to-peer authorized FHIR message over HTTPS with mutual TLS or whatever we work out for...that just wraps around the older HL7 v2 message to give you a bridge to finish crossing at some point in the future, when you switch to a pure FHIR message.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Thank you.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Does that make sense? Did I say that right, did I capture that Josh?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

And that’s for within the next 3 years?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Well I think we were going to say that, yeah, we came up with a couple of worked examples for how you might migrate and we did it in 3 stages corresponding to the 3 time periods that they are focusing these questions on. We’re going to zoom out in our transmittal letter and try to make that slightly more generic and then give the two examples that we gave as examples of application. But one of the things we’ll add to the generic approach is this notion of wrapping the content from an earlier version as a way to move into the HTTP era.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yup.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

That's an awful lot of words; I apologize if you're trying to take notes. Some of this stuff; it's hard to be succinct.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

(Indiscernible)

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

I think wrapping as part of a bridging process is the key idea.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Okay. So, should I go on to the next question?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yes. So we're now on number 2 there?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Yes. This is providers, including hospitals, ambulatory providers, long-term care centers and behavioral health providers should adopt and use Direct to reach critical mass.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

I'm not sure how this belongs here.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, whaattt?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

I mean, yes but.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, I mean, I think our answer is going to be something, use the appropriate standard to achieve the need, which may be Direct in some cases.

Janet Campbell – Software Developer – EPIC Systems

I think the one point I wanted to make here is that for better or for worse, we...with Direct in Stage 2 and so the certified EHRs out there support it, so there is at least some technical capital built up, but there are other issues as well, so, I don't know. I think it would be important to sort of acknowledge that that's one of the factors that goes into creating or picking a good standard, maybe not the only one.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

So are you saying Janet, that we should acknowledge that it is an appropriate standard to use or, I didn't follow the imp...

Janet Campbell – Software Developer – EPIC Systems

I'm not sure I did either. I was saying, I actually kind of was trying to reiterate my comment there was that if we're going to really encourage people to go to Direct, we've got a lot of the infrastructure there, but we're also missing a lot of critical infrastructure. And so if you're going to encourage them, it's not a matter of saying, hey guys, you should do this; you need to make it easier to find the other people who are...who can receive Direct messages, that kind of thing.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

You've got to work on content, you've got to work on workflow, you've got to work on making sure that it's DirectTrust or otherwise, we've got trust mechanisms that are appropriate.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, so that's a good positive way to respond to this. So Direct is an appropriate standard for these use cases; however, additional work needs to be done to standardize the content that's transferred, to make it easier to locate Direct addresses...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, let me potentially give an alternative way of saying that. I think there is an orchestration that wants to happen that involves organization or person A sending to organization or person B. That's a job that wants to get done in the real world. Right now the way to do that job is Direct as specified and so if you're doing that job, you probably should be doing that job as Direct as specified as already endorsed by the best available standards list.

We gave a framework for thinking about transitioning Direct to the core compos...core plus...core composables plus orchestration era and we refer back to that in our work. And then in general, the areas that are appropriate for...that are actually impeding critical mass or that are more appropriate for critical mass are the surrounding areas that are provided either in terms of orthogonal infrastructure like NPPES based directories or are provided by data sharing arrangements like the trust frameworks that a DirectTrust or others might supply.

George Cole – Principal Scientist, Community Solutions – Allscripts

Yeah, its George. I've looked back at this and now, if I don't...if I look back to L2, which is listed as send and then we have the 1, 2, 3; it seems to me this is an effort to broaden the scope from what previously was thought of as being under the auspices of either labeled inpatient or ambulatory domain. So now it looks to me as, by naming public health agencies, long-term care, it just seems to me these numbers 1, 2 and then the next one which is number 3 are a real effort to just make sure we're broadening this out to all healthcare.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

I think that's a component of it for sure.

Janet Campbell – Software Developer – EPIC Systems

I think that was...yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

And I don't...we would not dis...we would agree with that, I think.

George Cole – Principal Scientist, Community Solutions – Allscripts

Which we want to applaud, yes.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

But I think Janet's observation is a good one as well that Direct isn't done in terms of being...

George Cole – Principal Scientist, Community Solutions – Allscripts

No.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...highly usable yet, there's work that needs to be continued and it's not on the Direct protocol necessarily itself, but on some of these surround things, like directories and improved content standards and I guess you could consider the getting some consensus around the EDGE protocol is something that could be addressed, I mean, it's in the NPRM, albeit in a very confusing way. I don't know that we need to comment on the crossover to core composables here, Arien; that's, I guess, my...they're not asking us about that; Directs going to be around...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

That's fine, yup.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...same way emails around, doesn't mean we use email for...I mean, we use lots of other...to do things.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

We don't use email to set our Facebook status.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, yeah.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Or our Meerkat status, I've got to be hipper.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Too hip for me. Okay, so...

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Are we ready to go on to the next slide?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

I think so.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

I don't think there are any comments there, oh, yes there is. Providers and health IT developers should provide individuals with the ability to easily and securely transport their health data to destination of their choice.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

I mean, I think that...isn't that part of...that's part of the vision of view, download and transmit. I'm not quite sure why this isn't just the "T" part of transmit.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, umm, I think...I actually think we should go back to our previous comments because the reason this isn't getting done right now has nothing to do with anything that we've commented on to date.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Elaborate, I'm not following you.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Well, so umm, if...so there's one question which is the applicability of the DirectTrust framework for transmit cases and to the extent that Direct is a good fit for transmit, there's a massive ecosystem issue which is that in order for a patient to use transmit, they've got to sign up for and get a Direct address with a service provider who has a Direct address, but nobody wants a Direct address because there's not any use for transport that enables it...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Um hmm. Got it.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

So you've got this ecosystem stuck. We actually, I think would think that OAuth 2 fits a better and more consumer friendly model, where consumers can use the applications of their choice and instead of transmit to, they say, hey go get it from.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yup.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

And that approach may well better work for the job that wants to get done, which is consumers getting their information. But...

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

So this is...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yes, sorry, go ahead Josh.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

This is Josh and of course I agree with your characterization, Arien, but I'm also wary of overselling the promise here. There are some very strong structural similarities between a Direct-based approach and an OAuth-based approach, which is to say, no matter how you do it; the organization with the data has to trust the thing that's trying to get the data. And in the Direct world that means adding a new certificate to the trust store and in the OAuth world, it means registering a client ID and all the metadata that goes along with it. I happen to think the latter provides a much better consumer experience, but the provider organization still has to be on board.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

And that's exactly what I meant to say, that the things that are getting in the way of this are ecosystem and trust related, not, why didn't you implement this thing the right way related.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

Yeah, I think if we could wave a magic wand and make the trust issues go away with Direct, we would be left with a massive pile of usability issues on the consumer side.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Correct.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

But we just haven't unmasked that pile of issues yet.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

That's right.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

And maybe that's still a far out on people's radar. The other comment I'll make about the way that this particular condition is described in the left-hand column here, providing the ability to securely transport the data to the destination of their choice. There's nothing wrong with it, per se, but it does sort of encode or embed a certain model of the world...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

That's right.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

...and if I were writing this from scratch, I would have written something like, the provider organizations should have a way to allow consumers to share the data with whatever Apps and services they choose.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Or even more of a jobs to be done framework, the individuals should have access to all of their data. So...and there are a whole bunch of ways of doing it.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

So let's make our comment something along the lines that this should be made more generically about providing standard ways to share data between provider, patient and third parties of the patient's choice. I mean...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Another way is for individuals to have access to their data in the application and destination of their choice, but also lets encapsulate this commentary that we've had that the real issues are usability, ecosystem and trust related.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, I agree. I like that. But I think that the key, a couple of key insights; one is that it's not really technical problems that may be the barriers here, but also there's Josh's notion that it's not just a send to problem, it's more of a share with, which could be send or receive.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, there's nothing wrong inherently with send, so the job that wants to get done isn't either a send or a receive, it's have available, right, from a consumer perspective, regardless of which direction it goes. What the consumer actually wants is for the data to be available in the destination or application of their choice.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, that's why sharing seems to capture that, I mean...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Okay.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...they're moving their data and it's push or pull or smoke signal, you know, it gets there.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

And there are important workflow considerations in the consumer case that argue more for an OAuth 2 like approach, because I'm already in the application that I've chosen and I want that application to get the data in the other portal that I already know about. As opposed to a 2-step process where I've got to register for something as the destination and, so it actually fits the use case better. But then the third point is, and then you have all of the knotty and hairy ecosystem and trust considerations that are probably more of an impotence mismatch than anything we've already discussed.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

And I do feel like it's worth explicitly leaving space for what was probably the strongest original argument for the "T" in VDT; it wasn't really, at least on my reading, it was never really about letting patients share their data with Apps and services, it really was about letting patients send their data off to new healthcare providers.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, it is so funny, by the way, that as many times as I brought that up, never mind, I won't even go there.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

My phone is going to die, I'll be right back.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, it is happening, I mean, we're seeing these clearinghouses start to Blue Button clearinghouses starting to pop up that are getting consumers permission to have the data T'd to them, transmitted to them and they're doing things with it. So I think it's happening. So I think again, that is encompassed to broaden the notion to not just send, but to share, which could include both pull and push.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Shorter workgroup deliberation comments; all the hard issues are ecosystem and trust related. Uh oh...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Have to solve for those.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah. All right, can we go next?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

We're ready to go to the next slide, I think.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Well number 4, there's a question for 4, but I don't think we have anything to say, do we? Go back one slide.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Go back one slide. No this is stakeholder input.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

It's expand interoperable health IT and users.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Oh, it does say something about that, yup.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

No, I think we want fewer users, right?

Janet Campbell – Software Developer – EPIC Systems

Well in 2018 we start discouraging...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

That's right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

We'll be...we've got to tamp down the demand. Yeah, I say no...I would say we have no comment, of course.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Of course.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Okay, this is Debbie, next slide, please. And next slide please, oh, a big one. So there are 6 in the next section and we'll just go to the next slide and read them along with the comments that may be there. Next slide, please. Health IT developers, providers and researchers should increase use of national standards for query functionality.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Holy cow.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Okay, I've got my pen.

Janet Campbell – Software Developer – EPIC Systems

Well this is reminding me actually of a comment that I think either Arien or David you made like way back when you first started looking at this which was sort of about the organization of this in general, like we've got push, pull and then I think like, yeah, pub-sub is on sort of the pull side which is kind of weird anyway. But it's just the...with that. I don't know, maybe that wasn't one of you making that point, I thought it was.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, the...I think we...

Janet Campbell – Software Developer – EPIC Systems

I don't know where we can make that comment, if we still want to, but...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

I think we go back to the strong sentiment that we received from ONC which is that these questions were provided in an order for a reason, so we're going to comment on them, although we've already taken some liberty and put a separate transmittal letter that hopefully will provide a better framework for thinking about it.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

I mean, again, there's no argument with the statement.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

I think we refer back to our framework and say, as our framework states, yes...

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

...and we recommend doing it via broader adoption of core and orchestrations as well as continued use of existing standards as already articulated.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Right. So there's no sense in which we think query is a bad idea, it's a necessary function and so we're going to...yeah, all right. I mean that's the only thing I can think of that they're trying to snip out some notion that query capability is not needed or not a good idea, and I don't think any of us would say that, I don't think.

Okay, number 2 is the same question with publish and subscribe. Wouldn't we say there that we believe that publish and subscribe is a proven orchestration pattern in other industries and it probably has use in healthcare and...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

But we don't know what it is yet.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, I mean I don't think we aggressively do it anywhere in healthcare on a standards basis, I think we all probably have individual use cases. But is one of our listed orchestration patterns.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

So I think this is actually very salutatory, I think I said that right. I would speculate, and I wonder if Debbie or anybody else can agree or disagree with my speculation. I would speculate that ED notification and admit notification services have been useful and reasonably adopted but that ONC looked at that and thought, well ED notification's just a special case of notification services, so that's kind of something that wants to happen.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Right, in the immediate term, correct; I would agree with that...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

...based on our conversations with Erica.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

That there are some immediate wins, short-term wins around that.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

You know again the hard of this one is going to be the trust and governance and data sharing network aspects of who gets to publish and who gets to subscribe.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

So I'm wondering whether in our commentary we could agree that specific pub-sub like use cases including ED and admit notification services have been useful; that we would point back to our framework of if you're already doing it, keep doing it. I don't believe there's a standard way of doing ED admit notification services. We saw a CMS look; I believe we saw CMS look at notification services in the Meaningful Use side of the two documents. Again, I don't believe there's a standard way of doing it, so maybe we go back to our recommendations relating to explore other orchestration patterns in the 2015-2017 period where this might be one of those orchestration patterns that we'd encourage people to explore. I don't know.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, I mean is there an HL7 v2 pub-sub rubric that I'm not aware of.

Janet Campbell – Software Developer – EPIC Systems

Not that I know.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Not as far as I'm aware of.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital

No.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

So I think what we're saying is that stuff that happens today or, I think not what we're saying, but I think the fact is the stuff that happens today is ad hoc...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Correct.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...everybody sets it up their own way and we're suggesting that it's a good idea to address this with the core composites and a new orchestration pattern around pub-sub with HTTPS...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yup.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

...that needs to be developed. So in this case there's not a cross-over problem because there really isn't a current standard way to do pub-sub, so we should...we think it's a good idea to develop that with core services.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

That's right. We have practice, which is good, now it would be useful to standardize that practice and we actually have a framework for standardizing the practice, thumbs up.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Good.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Okay, this is Debbie, looking at the clock, so let's go to the next slide please. SDOs should pilot, assess and refine standards for RESTful web services.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

See framework.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, see framework.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

See framework, okay. And number 4, health IT developers should widely...ah, lost it off my screen...should widely implement something before my screen went dark.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

No, we're widely implementing the same thing we increased usage of.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

...national standards for query, yeah.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, so. Sure.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Okay. We agree with these, so this is Debbie again. Next slide please. Health IT developers should widely implement national standards for pub...I think we've...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

I don't think this is actually appropriate for 2015-2017 because there aren't any widely...there are no national standards to widely implement.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Not appropriate.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah. And 6 again is see framework.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Okay. It sounds like next slide please. No comment.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

See framework, see framework.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Yup. Next slide please, that's it.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

All right.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Ah I rushed just for no reason, we are ahead of time. So there is a piece left about possibly talking about next steps, NPRM, that's the last piece on the agenda.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Yeah, I don't think we have a time to do that so I'd actually rather give people back their time, just in terms of what...

George Cole – Principal Scientist, Community Solutions – Allscripts

Great.

Janet Campbell – Software Developer – EPIC Systems

That's great.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

...give back the time that we don't really have much of. So just in terms of next steps, we're going to draft a transmittal letter relating to our previous framework, send that out, look for comments via email and markup so that we can review it by next meeting and hopefully have all agreed on it. Number 2 is I think Debbie and ONC in general are going to take our comments and try to synthesize them and we'll do the same process, if that makes sense.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology

Yes.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

And then number 3 is, as soon as we know what our assignments are, we will send out our assignments and ask for this team to review the relevant sections of the NPRM and start providing comments. Make sense?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yup.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Cool.

Janet Campbell – Software Developer – EPIC Systems

Yeah.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Public comment.

Public Comment

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Caitlin or Lonnie, can you please open the lines?

Caitlin Chastain – Junior Project Manager – Altarum Institute

If you are listening via your computer speakers, you may dial 1-877-705-2976 and press *1 to be placed in the comment queue. If you are on the phone and would like to make a public comment, please press *1 at this time.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

We have no public comment at this time.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

All right, 10 minutes.

Janet Campbell – Software Developer – EPIC Systems

Thank you.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation

Thanks everybody.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Thank you everyone.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation

Yeah, thank..

George Cole – Principal Scientist, Community Solutions – Allscripts

Thanks everybody. All right, bye, bye.