HIT Standards Committee
Architecture, Services & Application Program Interfaces Workgroup
Final Transcript
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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
I'm here.

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
I'm here.

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

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

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
David Waltman? Gajen Sunthara? Sorry.

Gajen Sunthara, MS – Presidential Innovation Fellow – Department of Health & Human Services
No problem, I'm here.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Can you say your name properly again?

Gajen Sunthara, MS – Presidential Innovation Fellow – Department of Health & Human Services
Sure, Gajen Sunthara.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Okay, thank you. George Cole?

George Cole – Principal Scientist, Community Solutions – Allscripts
Yes, I'm here.

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

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
Janet Campbell?

Janet Campbell – Software Developer - EPIC Systems
Here.

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
Here.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Josh. And Sean Nolan? And from ONC do we have Debbie Bucci?

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

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Debbie. And with that I'll turn it back to you David and Arien.

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

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
David, do you want to kick us off?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
No, you can…Arien and I have not done a lot of pre-coordination, we've been too darned busy.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
All right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
So, it will become evident that some of this is on the fly coordination, but I'm happy to…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
So, as I mentioned in our last meeting, there were…there are at least…there were at the time at least two activities that were inflight; one of them was the Interoperability Roadmap and we were nearing the end of our opportunity to put together frameworks for evaluating things and then going straight into evaluation season. So, here we are, we've seen the 100 and something page Interoperability Roadmap. We've all read it, digested it and understood it and we're being asked to comment on two sections, although I'm going to propose that we kind of sneak our way into a third section.

So I think part of the first part of this meeting is to make sure that we think we've got, given the framework that we've established, that we think we've got the right set of responsibilities. And then maybe…I did hear that ONC is welcoming, if you can get your primary duties done, you certainly can comment on other things as well. Hopefully I got that right, Michelle.

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
All right, so our…so let's go to the next slide…this was our workgroup charge. Let's go to the next slide. Here's where we are in the timeline. We're really in this point talking about the Interoperability Roadmap. There's this estimated blue line in which we presume that we will be asked to comment on part of a Certification NPRM, so we probably should be thinking about wrapping up our Interoperability Roadmap comments in relatively rapid order to prepare the way for the next round of comment season and then going to turn around, gasping for air round about the start of the summer months. So, let's go to the next slide.

This is the agenda, in terms of things that we'll be asked to do. We're trying to aim at having our roadmap comments by the April Standards Committee meeting. We are being proposed possibly maybe being tasked with commenting on the Certification NPRM in the March Standards Committee meeting;

you can read between the lines however you want to in terms of dates for a putative Certification NPRM. So we basically have three meetings to get our act together relative to the Interoperability Roadmap comments, of which this is one and then we'll be finalizing our comments on the roadmap in April and finalizing our comments on the Certification NPRM in May. So, kind of a death march ahead of us. I want to pause and see if anybody has questions on the overall timeline.

And I think all of this, I think it's worth mentioning that the Certification NPRM is clearly anticipated, but you sort of see that there's maybe HIMSS in there somewhere and there's been a history; but, OMB and the complex dance of regulation being what they are, it's anybody's guess as to whether that activity will hit this timeline or not. So, having said that, I'll just ask if there's any comment? I don't know why ONC would think it would be a good idea to drop a Certification NPRM in the middle of HIMSS, but somehow they think that's a good idea. Anyway, editorial comments aside.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
At least they didn't do it at Christmas this year, so we can be thankful for that.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah, it's true, it's true. But you know, you're there…I won't go there, sorry. Let's go to the next slide. So this is our charge with respect to the roadmap. In general we're asking about…the general questions are; are these the right actions? What are the gaps? What more specific needs to be done and what's the timing of those specific things? Do we have the right folks involved? So that's kind of the general questions that all the workgroups are being tasked with.

We are, in particular, also being tasked with we've identified at least a framework for thinking about architectural patterns, so we want to evaluate the roadmap in terms of those architectural patterns, look at the standards…Standards Advisory and evaluate whether they're advancing us towards those architectural patterns and then propose gaps, changes, etcetera, relative to the Interoperability Roadmap and the Standards Advisory. Our asks are for roadmap sections K and L, although I think the framework that we came up also includes content and data, so we might sneak our way into, I forget what that section is, but we might sneak our way into one of the other sections. And then…

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…I'd open for other thoughts in terms of, assuming we do our core job well in sections K and L, are there other sections that we think are appropriate for us to provide comment on? David sorry, you were trying to get it.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
No, it was just thinking out loud here about how we want to approach these general questions as opposed to the specific roadmap sections; whether we want to kind of have a high level opinion based on what we've read and heard so far, that we try to discuss a little bit before we dive into the specific questions. It's a forest and trees question; is it better to go look at the trees and then zoom out to the forest or should we talk about the forest and then zoom in to the trees. Or maybe we do both.

Janet Campbell – Software Developer – EPIC Systems
As far as I can tell from the wording of this, it looks like they want us to stand in certain like grove of trees and then talk about the forest, so it's like for each section, how do these general questions apply? Not that I think that should stop us, but I think that was the intent.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
That's right, so I guess the way to frame it is that we have to comment on sections, what is it, K and L; that doesn't prevent us from commenting on the whole of the roadmap and it doesn't prevent us from taking other specific sections and providing commentary.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, I guess I wasn't reading it that way but I see that it could be taken that way. I was looking at something fairly generic above and beyond the specifics of the section.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
No, I think that's right…

Janet Campbell – Software Developer – EPIC Systems
It says…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…I think that's the intent of the general questions, but it does say, as they apply to the assigned roadmap section. But you know what, we're a federal advisory committee, a workgroup of a federal advisory committee and our job is to advise.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Right. Well, the top question in the bottom section there, charge/questions is, does the roadmap advance towards the architectural and architectural patterns identified by our workgroup? So that's pretty broad, so that we can answer in that context broadly, I think, if I'm reading that right. I mean, because that's roadmap, that's not section. Anyway, Michelle or Debbie, do you have guidance you want to push at us from your side before we make our own minds up here?

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
The only thing I'll say is that this group was assigned two sections and most groups weren't. We knew that this group was overly ambitious anyway, but I just wanted to give you that as a point of reference.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
They are actually two of the…

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
I'm sure that you'll have time to focus on other things, but I just wanted to let you know that.

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

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
They are two of the shorter sections.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
And then we were planning…yes. We were planning to talk about process for aggregating comment and figuring out the best way to do that at the end of the call, but we can certainly do that now, too.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Oh, okay, so you have a process in mind for us.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
We are going to propose a process and then it's open to discussion, of course.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
So did you want to jump to th…this is Debbie; would you like to jump to those slides now and talk about that if you'd like?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Sure, yeah. Let's do it. So again, let me just see if I can recap. We have to comment on sections K and L; Michelle is advising us that commenting on sections K and L itself is a big job because we're just that good, we can do it. And then having done that job extraordinarily well, we are then…I then will interpret that we are free to cast our gaze wider and provide the helpful commentary and advice to the National Coordinator that we are famed for.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
This is Debbie, before we jump to slide 23, that's where we're going to go, I'd like to remind the Chairs that the questions in the charge actually were some of your thoughts.

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yup, that's right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Good, gives us extra incentive to answer them.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
So hopefully you can interpret that. So I think, Michelle, this is Debbie again; we want to…whoever's doing the slides, we want to go to slide 23, says process.

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
All right, here we are.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Okay, so we were proposing, you know, there are a couple of ways to go about it but I've found with the FACAs in the past, and this group might be different because it's a little bit smaller, but we have found that sometimes it's easier to do the work offline and bring it back to the group for discussion and have something to react to rather than to do the work on the call.

So we were proposing to either share some…a template with the workgroup members and have all of the workgroup members respond to that template and then ONC staff will synthesize the feedback that we receive and then we'll discuss those on future calls. Or another option we thought of was maybe we chunk it out in some shape or form and assign leads to take on different sections of what you've been assigned and have them share their thoughts on future calls and then we can react to that as we work on comments.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
This is…

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
So those are just a few ideas.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
This is Arien, I've found that kind of break the task up and bring it together activity worked really well in the past, but I'd propose that back to the full group.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
You mean, break it up as in assign pieces to different ones of us or each of us…

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

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…go offline and do the whole thing.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
I'm open either way but I think to the extent that there are thematic chunks, having those thematic chunks taken up by small working groups who work offline and then bring it back for full consideration, I guess that's the direction that I propose. But, open either way.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
We're such a small team, we're going to all be either chunks of one or we're going to all be in the same…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
You're right…

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
I guess we…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…so maybe we just…maybe just all…we just all do the whole thing.

Janet Campbell – Software Developer – EPIC Systems
That's…I mean if there's something one person doesn't feel like they're qualified to comment on, they can just not do that.

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
So with these folks, who's going to feel that they're not qualified?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
So this is Debbie and so it's part of my task to compile the comments we send to everybody and I'll compile, is that the thought?

Janet Campbell – Software Developer – EPIC Systems
Yup.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
I thin…so maybe, I mean we could take a…maybe it works to…I'm assuming we want to take a first cut at discussing some of these today and then go offline and write our thoughts down, based in some part on the discussion and then you would merge them, edit them down.

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

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Does that sound correct?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
That's what I was thinking.

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.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
So our other plan for the rest of the call was for those who weren't able to listen in, just give a quick, high level review of what Erica brought to us on Tuesday and then kind of walk through the section in a…at a high level now, because folks if they have questions, we could ask them or get answers to them so that when you go off and do your work, you'll be more informed.

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

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
And this is Debbie again; I would suggest then this group has overviewed the roadmap several times, that we jump back to slide 15, which is today's workgroup discussion.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Say that number again.

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

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

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
That removes slides 8 through…the ones you said that we could avoid, David.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, I mean, I only…

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Unless David or Arien have any comments from Tuesday's meeting that they want to share.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
Right, that's true.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Maybe it's worthwhile going through those, we can go through them really quickly and then go back to this slide.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
That's fine and yeah, there…okay, then we're going back to slide 8.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah, I actually think it was interesting in the meeting itself that sections K and L had probably the least comment. But why don't you keep going.

Janet Campbell – Software Developer – EPIC Systems
Aren't they towards the end?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
They were towards the end, we were tired.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
There we go; this is where we left off.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Okay, motherhood and apple pie, let's go to the next one.

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah, so this was, let me just provide a little color commentary here. The framework for the goals for 2015-2017 is the nationwide ability to send, receive, find and use a common clinical data set. There was some commentary at the beginning of the meeting that where ONC uses the term person centered in the roadmap. And there was some feedback that that notion of person centered interoperability should be foundational and that although it may not be achievable for the 2017 period. That I think there was a sentiment that we should be thinking about a nationwide ability to send, receive, find and use a person centered common clinical data set where person centered would be defined both in terms of individual access to the person's health record that's inclusive of the fragments of that record that might be in individual HIT systems; but also the provider's access for care and the system's access for operating as a learning health system and improving the health of the population. So I think that was the major commentary on that section.

Janet Campbell – Software Developer – EPIC Systems
So Arien, when you brought up that comment, I was listening when you brought it up and you indicated that shifting to that kind of view would have what sounded like sort of major implications…policy and standards. And I was wondering, because I didn't quite follow that, I would have just sort of assumed that if we have a common clinical data set and language that exchanges data back and forth, the more interconnected that web of interoperability is, the more I would assume that it would support that patient centered thing. So I guess I didn't really see the tension between the two that you mentioned.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah, I'm…I was thinking more in terms of measurement than in terms of…you know, I think from…with the direction that we're going in terms of core standards that that's probably appropriate. There are discussions such as whether peer-to-peer…I was thinking of a discussion I had with Dave Castle that morning about whether peer-to-peer xDPd out of the box gets you to those things? So I was thinking there might be certain technical approaches that you might take and think are good first steps, but also acknowledge that there's a level of scale that they don't get to.

But I was more thinking about measurement and success criteria, that we might be in a world where individual EHRs have improve the ability to open interfaces into the fragments of the person's record and acknowledge that that's good and tremendous progress, but also acknowledge that if we're not in a place where the person can access his or her record across multiple settings of care or where the system can't access that record for purposes of care or health, that we, from a measurement perspective, may be suboptimal.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, this is David. I had similar thought to Arien's parsing what you were saying and that was what I assumed you meant and I think we might struggle a little bit or we should carefully think about how we capture that thought. But I think maybe it's something along the lines that peer-to-peer exchange, which is the so-called targeted query, may not be adequate for the goals of this 10-year vision. You may start there and in certain instances that may be the best you can do, but you need to have more than just two peers talking to each other.

Janet Campbell – Software Developer – EPIC Systems
But just to be clear, though, peer-to-peer and targeted query aren't necessarily in lock step, right? So like you could have peer-to-peer data exchange while the query is distributed through a federator.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And so…and what I'm limiting…what I mean by peer-to-peer is just to say, if you have interchanged peer-to-peer, you may not be done and that the notion of person centric is to say, remember that the record may, in fact, be distributed and that additional services, APIs, calls, whatever are necessary to pull the whole record together.

Janet Campbell – Software Developer – EPIC Systems
But that could be…

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

Janet Campbell – Software Developer – EPIC Systems
…potentially peer-to-peer, peer-to-peer, peer-to-peer?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah no, individual movement is always peer-to-peer; I mean we're not…I don't think we're talking about a publish subscribe model at this point yet, but you may…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
(Indiscernible)

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…if you only get one piece of it, you may have satisfied an incentive measure that you did targeted query, but that may not be adequate for the clinician.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
And that's exactly the intent that I was saying which is why I was saying, let's focus first on in terms of measurement and success criteria. We may acknowledge that opening up individual HIT systems is a huge step forward, but also acknowledge that if the person can't get access to his or her own record and if providers can't get access to that record for purposes of care or population health, that we may be at that point still suboptimal. And that really should be our lens.

Janet Campbell – Software Developer – EPIC Systems
Got it. Okay.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And the rubric here of ability to send, receive, find and use, I don't know exactly how that got written in that order, it probably is more along the lines of find, send, receive and use or find, send , receive and use or something like that because that find step is obviously a critical piece and it gets the whole section on patient matching and I just think that we need to make sure that in the…from an API point of view, we are comfortable…or we remind the ONC that finding the data is a really critical step if you want a complete or a semi-complete record.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah, I mean send is more about getting nationwide ubiquity of Direct of something like Direct, but then when you go into what Peter DeVault really helpfully framed in the Interoperability Workgroup as anticipated versus unanticipated transitions…

Janet Campbell – Software Developer – EPIC Systems
Um hmm.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…when you're in the realm of unanticipated transitions is where you're in the realm of, and David, I think your ordering is right, find and receive.

Janet Campbell – Software Developer – EPIC Systems
Right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
You know, in the Privacy & Security Tiger Team a couple of years ago, focused on this notion of targeted query to kind of try to simplify the HIPAA implications, and I don't want us to go down that rabbit hole here. But it can be…almost become received wisdom that the ability to locate a piece of the record and go query it is mission accomplished. And I think what we're saying here is, maybe that's a necessary step, but it's not necessarily sufficient. Anyway, it's just…I think this can go in our general comment section, I think that's…those are really good points.

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

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
I want to change and say there's another aspect to person centric that Arien I thought you were going to include and I don't think you did and I don't think anybody else did, which is, the notion that the person is engaged in this process, the patient themselves; and obviously not a new thought to ONC, but I was a little surprised not to see more in the roadmap about what the role a consume plays as a potential vector of their information, as an aggregator of their information…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Um hmm.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…as a manager of the use and access to their information. It's hard for me to imagine that in the next 10 years we're not going to see that grow from where it is today.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
This is Arien, that's what I meant by saying that the person has access to his or her full record across all the systems…has easy access to his or her full record across all the systems of care.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And access and maybe more…and some degree of management; I mean, I think some of the, again, personal opinion here, but Lucia Savage and I have argued about this on some of the privacy calls is, to have the extreme degree of control over the record that they envision, it's possible it may require the consumer to actually do the editing of the record. I mean, I'm not sure we can get there with anything less than something like that for that tiny percentage of the population that really wants to do it that way. I mean, that's…Carl Dvorak presented that very idea to one of the workgroups when we were talking about data segmentation and it really stuck in my head that yeah, if you really want to manage the record that accurately, you may have to do it yourself.

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

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
I don't know that we can do it computationally. But that's way off our subject.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah, yeah, that's right. So, I'm trying to figure out whether to comment here or comment on the next slide. Why don't we go to the next slide and we'll see if we need to back back up. So the comment here, this was maintain from the previous maintained from the previous version except for this focus on scalability and universal access. And Erica's comment here, which I thought was great except for it messes up the 3 x 3 square, is that we…we're in a world where we have pockets of success but that the ONC roadmap aim is to have universality and that requires a level of scale and ultra-large scale system perspective that needs to be incorporated. Go to the next slide.

All right, I'm just going to give a little bit of voiceover in terms of where the controversy in the meeting was. I think there was a strong amount of controversy relative to certification, and that's not our charge, but I just wanted to note that I think there was a perspective that certification for Stage 2 didn't do what

I think stakeholders wanted it to do relative to ensuring out of the box interoperability. And that we might was to consider different approaches for timeline and approaches for certification.
There was a lot of discussion relative to the notion of basic choice relative to privacy and security and what basic choice meant and whether we're going above and beyond HIPAA or whether we're getting better tools for people who did want to go above and beyond HIPAA. And then I think some discussion on governance and what the difference between what some members of the Standards Committee would consider positive and good governance and overreaching might be, which I think led to the conclusion that it really depends on what you're trying to do, but there are certain aspects that we've discussed in the past that may be overreach. And there was a meta-theme of trying to make sure that governance was not inadvertently locking in the least common denominator kinds of exchange. David, anything more that you remember in terms of high level commentary from the Standards Committee?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Well I think I raised the ceiling/floor analogy a number of times, just to remind Erica and her colleagues at ONC that the roadmap shouldn't be inadvertently setting a ceiling by requiring everybody to meet a certain floor. And that may have more to do with incentive aspects of the work than the certification, but you can imagine some of the…I think we all agree that some mistakes were probably made around, for example, requiring specific means to satisfy a behavior that you wanted to encourage, like transition of care documents had to go via one specific standard like Direct as opposed to allowing a more flexible way to achieve that end.

So I think there was general head nodding around the room that we are setting floors, not ceilings and that we should make sure that we don't specify approaches that lock you in to only one way to solve a problem. Let the market flourish and experiment, we've got 10 years of development ahead of us here, a lot of things are going to happen that aren't anticipated by this roadmap. So, I don't think it was controversial, but it did come up if for no other reason than I kept bringing it up.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yes, and by the way, if anybody is thinking like Arien and David, your commentary is basically the Arien and David commentary; I'm trying to, I think, represent the full discussion but I'd also comment that for whatever reason, David and I tended to talk a lot.

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

George Cole – Principal Scientist, Community Solutions – Allscripts
It's George. Arien, I heard some interesting discussions, and I don't know if it ended up in other discussions in the room afterwards or before but, there were discussions around the current state of the separability, I guess might be the term, of clinical versus learning health systems and how over time these need to merge and that based on that, we shouldn't try to continue to keep these separate as we look at actions and list and things to do. I thought that was an interesting comment in the meeting.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
This is Arien. I heard that; I also heard a determined focus on outcome measures versus process measures and a reflection that sometimes the net effect of what we're doing gets people focused so much on the tactics that they actually don't have the ability to pull together the activities necessary for a learning health system.

George Cole – Principal Scientist, Community Solutions – Allscripts
Um hmm.
Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
All right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, there was a little bit of debate about the divergence between the rules under HIPAA and the behaviors under the Common Rule and…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Oh yeah, that was…

George Cole – Principal Scientist, Community Solutions – Allscripts
Yeah, yeah, yeah, yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…the point; fortunately we don't have to weigh in on that one.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah, that's…I don't know who is going to weigh in on that one because it's a really important point if you actually wanted to…

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…I think Doug Fridsma was commenting that if you actually…if you do a clinical improvement activity at one OCHA or covered entity, you're fine. But if you actually want to publish the findings of that and you've just done a research study and you're under the Common Rule, which I thought was fascinating. Anyway, next slide, please.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, yeah that's how I understand it; if the exercise is to increase general knowledge its research; so, you can do the work, just don't publish it.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah which is kind of odd.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Pretty bizarre, that's hardly a learning system, is it?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
All right. Hopefully people have had a chance…let's keep going. Next slide. Keep going. Umm, keep going and keep going. So I think we're back to…no, one more. All right, so I think now we're back to where we started, which is charging us up in the right place relative to our activities. And Debbie and Michelle, I don't know if you wanted us to lead this or if you want to lead this or how you're thinking about this.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
I can walk through that if you want.
Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Sure.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
This is Debbie. So, we're at the secure standards and services and across through all these slides, the general questions and the workgroup's charge, just to keep it in mind as you reference it. And for the…this section focuses primarily on the APIs…again, before the meeting and I'll just step through it. So, one is through the coordination, governance and process, health IT developers, SDOs, ONC and others should implement a coordinated approach to developing and standardizing a targeted set of public APIs for nationwide interoperability. And then two, HIT developers and SDOs should develop public APIs for sending, receiving and finding a common clinical data set. And for 2018 and beyond, they have left it open for stakeholder input; so I'm not sure whether we're to comment on that or not. Next slide, please.

Certification bodies, including ONC, should develop a certification approach to encourage the adoption of specific or consistent functioning APIs as to reduce switching costs but that does not prevent the adoption of innovative new APIs. Number 4, SDOs should advance and accelerate the development of standardized RESTful APIs. And then 5, health IT developers should work with SDOs to develop standards for interoperable electronic health devices. I think this is the last slide for this section; did you want to talk a little bit about it or should we go on?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah, let's do that.

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
Then let's go back to…do you want to go back one slide then, please? There we go. I'll hand it over to you.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Let me first get…

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
There's a little bit of a problem here that what's in the actual text is different from what's in these bullets. I'm trying to find…

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
In the text…you mean the text of the roadmap?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah, so…

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah, we're talking about…so there's the text of the roadmap and the kind of surrounding narrative and then there's the stuff that's in the boxes. So for people who are following along at home, we're talking about the roadmap, page 88. It maps out…

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…with the box here that we've just reviewed and then…

M
Table 11.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…after…by…

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
It actually starts on 86…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah, so it's preceded by the text that starts on 86 that provides a full set of narrative that provides context for the text in those boxes.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And I personally have a bunch of reactions, one or two of which I actually brought out in a session about the body text on page 86, that aren't specifically in these questions. So, I feel like we ought to comment on them, on the text. I don't know, Debbie and ONC, what…are we only allowed to answer the questions in the box or can we comment on the text?

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
No, of course you can comment on the text, we're just trying to…it's hard on these calls to pull out pieces, so I'm sorry if we didn't pull out the narrative piece, we just pulled out the boxes.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
No, I…you did quite logically what I think you would be expected to do, it's just those boxes didn't capture some of the actual background and current state commentary. So, I mean, the question I raised in the meeting, and again, it's a little bit of a technicality, but I think it's one of those things to the standards geek that actually matters is the rather loose use of the notion of SOWA(?) that is tossed around without a definition and at some point it sounds like they mean by SOWA what I think a lot of people would mean which is with WS-Star based approach to APIs and in other places, SOWA seems to

be a broader concept that actually encompasses more loosely coupled systems like you might have with the RESTful models of FHIR. And so my comment would be that they should either avoid that term or should define more precisely what they mean.

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

And David, I'm not sure whether I'm supposed to comment that when I read through today I was struck about services they called it SOWA, but when they started talking about transport, they specifically said SOAP. So, I think it was…making the difference between the two.

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

Yeah, we're…

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

That was my…

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

…not yet at the transport level. I do think, to David's point, we have this divergence in terms of SOWA, in terms of APIs and in terms of this specialization of APIs as actually meeting sending, receiving and finding a common clinical data set. And I think some of the tension in those words probably should commented on. I personally think that the framework we put together in this workgroup is a reasonably good framework for thinking about what should be standardized and what should not be standardized, and just as a reminder, I think we came to a perspective that said there's a notion of a composable data language that solves for the Pareto principle of health IT or of health data. There's a concept of, I forget whether we called it primitive services or core…

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

Core data services is what we called it in…

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

…data service, right…

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

…in JTF.

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

…that are more primitive operations with respect to a health record and then I think we proposed kicking up to the innovation space compositions of those core data services relative to what I think some of us would call SOWA or APIs or higher level coordination. But…

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

So what I…I mean, what I think what is actually happening in our world right now is we are evolving a new set of RESTful standards that will, over time, in the duration…I mean, in the timeframe of this roadmap, over that next 10-year period, be a reasonable belief to see these evolving new RESTful approaches will gradually supplant and perhaps replace the current SOAP-based services that we're using today or that we anticipate to be using for another couple of years. So, I'd like to see us call that out, I mean, they ask for what happens in the next…you got 2 years, 3 years, 3 years or however it's divided up, can we say something like we see a rapid…well, I don't know if rapid is the right word, a shift

from the SOAP-based model of service architecture to the RESTful model of service architecture followed by more complex orchestrations, perhaps as newer standards emerge?

Janet Campbell – Software Developer – EPIC Systems
My issue with that is that a shift implies that people would be using the other ones less commonly and just looking at like HL7 V.2 versus V.3, maybe that can kind of be a gradual shift, but it seems like sort of more of a 40:60 versus a 20:80.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, I think that's a good…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
I'm going to call…this is Arien.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…that's a good concern.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
I'm going to call a process check because we're going to get into transport in the next section and, yeah.

M
How do you distinguish these things?

Janet Campbell – Software Developer – EPIC Systems
And actually, point 4 of K-1, actually mentions RESTful APIs and that actually bugged me a little bit. I feel like if…what this really should do is focus on the standards, whatever an accompanying standards guide is. It feels like the roadmap maybe shouldn't be naming standards if they have a specific document to name standards.

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Let…I'm going to see if we can propose a way of untangling this discussion. I think that we previously thought about some architectural patterns for some things that want to get done in healthcare, regardless of whether you're talking the RIM and V3 and ebXML or you're talking about V2 or you're talking about FHIR; there's a set of things that want to get done and I think we did some work previously to define the set of things that want to get done and provide some advice for what a roadmap should be doing, which is accelerating making sure all those things get done.

And then we carefully separated those things that want to get done from the actual standards like FHIR or transport mechanisms like HTTP that enable those things to get done because we recognize that over a 10-year period, we may be into quantum exchange of QBitz on a Mars to Earth data plane. I mean, we don't know what…we've been on a 10-year run of the current standards; we're making a transition right now. If history is any guide, we're going to be having a 10-year run of this and doing a transition sort of toward the end of that 10-year period. And we shouldn't be locking into what we think the best answer is right now, but provide a roadmap and guidance for some things that want to get done and then specialize that for some near-term requirements, at least that's my perspective.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And I…I mean I think though, I'm with you. I'm feeling handcuffed by the format of the way these questions were asked and the way the sections were divvied up, which I don't think is terribly logical. And I'm going to be a rebel and just say, let's answer what we think a roadmap ought to describe.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Oh, yeah. Amen.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And if it doesn't fit, then they can either ignore our work, which is their prerogative or they can shift the way they divvied the stuff up. So I think the things that we've talked about in our group here, that we did on the JTF before, that the JASON Report did itself, which got at least a footnote in the roadmap, albeit I don't think it got the prominence that it probably deserved based on the amount of time and attention paid to it by the community. Because we see a whole bunch of these things evolving and Janet, I agree the word shift may not be the right word, so evolving, rebalancing, like your portfolio, rebalance it based on…

Janet Campbell – Software Developer – EPIC Systems
I like that.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…emerging…new opportunities. We see a rebalancing moving from SOAP-based services to RESTful services to orchestrated RESTful services; that's kind of what we went through on our last call. At the same time we see a transition from what we called the spoke APIs, which are purpose specific, like XDS, XCA, XCPD to composable APIs to…which is what we're hoping for with FHIR, to I don't know, orchestrated compositions may be the better term there. And then third track, we've talked innumerable times about the evolution from document-based exchange as the primary means of interoperability to more document plus discrete or discrete where discrete can be a document.

So those…I'd like to see us reiterate that over the next 10 years we think those three threads will play out and it's about both transport and content and it all goes together. It's hard to see the parts and say, you can use FHIR but you've got to move CDAs, or something; it doesn't make any sense. Anyway, I'm rambling, sorry. I wonder, does it make any sense to just drop back and instead of answering these questions question by question as we put together a prospective that's the broader picture.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
This is Arien; that's what I would recommend as well; obviously much broader feedback.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
This is Debbie; I think we may need to move to slide 19, because of time.

Janet Campbell – Software Developer – EPIC Systems
Well I think, to answer your question, while we might want to put together that perspective, if we do see things that do seem like the little niggly stuff that's just obviously out of place, it makes sense to comment on that as well.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Oh yeah, good point. Good point.
Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, not ruling out answering the questions, just saying don't let us be…let's not be totally constrained by the questions.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Sorry Debbie, you were proposing we go to transport, the transport part of our charge, is that right?

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
Okay.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
So, and I think…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Hold on, before we do that, though; I want to make sure we hear from Josh and from George, because David and I have been talking a lot as is our want and Janet's been good about elbowing her way in; the other people are actually polite.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
We probably put Josh to sleep.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children's Hospital
Yeah, I'm here and I'm awake and actually am attending, but somewhat overwhelmed by the process, hoping that I'll have more to contribute when we actually get to the point that we are sharing our evaluation on this.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Okay. And George?

George Cole – Principal Scientist, Community Solutions – Allscripts
And George, sure, so I think great comments today on the…and good discussion, I think, also on what we want to do in terms of separation. I always have trouble, but I think we really do want to continue to believe that transport is yet something quite unique and that it's called out in a different section is, I think, important; Janet that was a great catch about transport being mentioned in section K. Yeah, that's…I think that's about all I have right now.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
I mean I…this is David; I would…I think that we need to refine it, but if we took some of the discussion from our previous two meetings about the narrow waist of the Internet hourglass. Maybe we distill that down to kind of one crystalizing diagram that shows the stuff that you want to keep in common at the core and then the divergence as you go up on the right with transport and up on the left with profiles and content; transport and security on one side and profiles and content on the other side.

If in our report out we start with that and say, we see this as the context that will dominate the evolution of what we do for interoperability over the next decade, that's the main message and then we can come back in to some of these specific questions that say, I don't know, some of the detailed ones that Janet suggests we probably need very concrete answers to. A combination of those two, I think , would be valuable, you know, because it really is guidance and…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
All right, let's go on to the transport, so given that; let's go on to the transport section.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
Yes, I think, I'm looking that the slides are labeled wrong and they're out of order. This is the transport section, but I'm starting at L2 instead of L1; but hopefully the next one is L1, but this is…there we go, thank you.

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
L1. ONC will identify and HIT developers should adopt a minimum set of common transport standards to enable priority learning health system functions. SDOs should update standards and HIT developers should adopt as needed. Should I move on? I think you need to go back one.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
This is the part that kind of seems to make sense and then we go on to the next one.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
Which is backwards to L2…the other way, yes, thank you. Send, public health agencies should converge on the use of standardized web services to support data submission and query. Providers, that is hospitals, ambulatory providers, long term care, etcetera, should adopt and use Direct to reach critical mass. And provider's and health IT developers should provide individuals with the ability to easily and securely transport their health data to a destination of their choice. Should I stop here?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yes, please. So, we had a really nice bullet 1 and bullet 2.

M
What does this mean?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
And then we go to bullet 1 of L2 where we're kind of being slippery in terms of standardized web services for data submission and query for public health agencies. I think people understand the background here…I personally think there's a value that we could do in just exposing the, and I'm going to be non-diplomatic and just say the ridiculous heterogeneity that we have right now in terms of transport and packaging in the sense that we've got some public health agencies using one thing, some using something else. We've got…we've basically got a little bit of everything; we've got a little bit of SMTP/SMIME, we've got a little bit of RESTful HTTP and we've got SOAP of every flavor you can imagine. And then bullet 3 to me belongs maybe in the APIs section, because it's not quite clear what it…it seems a little lonely here.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Could somebody define for me what we mean when we say a transport standard as opposed to an API? I don't have a clue what they mean by that.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
This is Arien; I would…the way that I rationalize this, let me just make sense in Arien-land and that doesn't necessarily make sense anywhere else, is that I rationalize the API space as things that want to get done and the transport space as mapping the things that want to get done onto actually sending bits over the wire. I agree that it's not clear to me how you cleanly separate those two things, but that's at least how I rationalize it in my head; I'm not sure if that helps anybody else.

Janet Campbell – Software Developer – EPIC Systems
I actually, I don't know if that's exactly the same model I came up with. I came up with sort of the…and maybe I'm just thinking a different way, but that an API encompasses sort of both data formats and actions…the actions…that you could do while transport was very low level and theoretically content agnostic or payload agnostic. Theoretically.

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

George Cole – Principal Scientist, Community Solutions – Allscripts
But David to your point, it's George; I think that so quite often API specifications and saying what you want to do and where the content's needed in order to make the requirement to fulfill the contract for the API, it's quite often tightly bundled with a particular protocol over the wire which people would talk about as transport.

Janet Campbell – Software Developer – EPIC Systems
Right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Right. Yeah, so in the way I think they're thinking about it you might say that a SOAP-based way to move something versus an HTTP RESTful way to move something is different in transport and they could be moving the same chunk of data, they're both APIs.

George Cole – Principal Scientist, Community Solutions – Allscripts
Right.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah, I think the way I think about it again is there are some things that want to get done and the things that want to get done are how independent. And then at some point you need to actually say, okay, how do those things get done and how do those bits move over the wire?
David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
So APIs…yeah, APIs describe capabilities of systems, they expose capabilities.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Um hmm.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And those capabilities could be quite simple like, get me this data; but nonetheless, it's a capability. And then transport is the technical means by which that capability is exposed.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
That's the distinction that I make so in the context of Direct, for example, I think we've recognized that there is something that wants to happen and it happens ubiquitously, which is system A sends some data package to system B and system A and system B know who they are and in reality, that job gets done via HL7 ORU over MLLP over BPN. It gets done via a variety of other kinds of proprietary mechanisms and it gets done via SMTP and SMIME. But the job itself wants to get done.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Right. So when we talk about something like FHIR, the way we are using it kind of to refer to the whole bundle of things that are going on in FHIR space, we are talking about all of the above plus content.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
And that's exactly why I was proposing earlier that we might want to sneak the content space into our mandate, because I think it's part of the framework that we proposed.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Right. Right. No, I agree. That's why I'm struggling to figure out how to tease these apart so that we can bring it all back together again and say that we really ought to be talking about these as kind of unified wholes. Yeah, okay, so I apologize for that. That helps me, at least in my head, tease apart these things. I'm not sure that it's going to be worth answering these questions the way they're asking them, though, unless we want to just make some very specific points.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Well as I was saying, I was suggesting that we comment on when you add public health and you add the existing the two mechanisms and you add Direct and you add the IHE WS-Star plus ebXML approaches, you've got a set of individual decisions that may make sense, but when you peel back you go, whoa, what are you talking about.

George Cole – Principal Scientist, Community Solutions – Allscripts
Yeah.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
So I do think we should actually find a way to make that comment. Can we go to the next slide, maybe.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
Slide 21, please. This is receive and find, it should be find and receive.

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

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
HIT developers, providers and researchers should increase the use of national standards for query functionality. HIT developers, providers and public health agencies should increase use of national standards for pub & sub functionalities. And SDOs should pilot, assess and refine standards for RESTful web services.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
So I'm going to propose that the last bullet of L2 and the first two bullets of L3 actually belong in the API section…

Janet Campbell – Software Developer – EPIC Systems
Yes.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…because they're really things that want to get done.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And I'm going to suggest that this like that word salad game that you play when you put refrigerator magnets…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Should we do the randomized roadmap?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah. I…this is all over the map. Where did publish and subscribe come from? I mean, have we said one word about that? Has anybody said a word about that?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Here's my speculation and it's only a speculation, so this is Arien. EHealth Exchange in conjunction with CDC has a prototype pub sub function, whose name I can't remember. I'm not sure if it's in production use, but because it's part of the eHealth Exchange profile, I'm wondering whether that got snuck in here.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah and don't get me wrong, I think it's a great idea, I just don't think it's a near term priority as it implies here.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
I'd love it if ONC could comment on where pub sub got in, because it wasn't even discussed in the background state or the background moving forward sections.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
We'll find that out. This is Debbie.
Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Okay.

Janet Campbell – Software Developer – EPIC Systems
Arien and David, do you think maybe this is an attempt to speak to the concept that you were trying to advance earlier about the person centered record, that that's what they were envisioning here?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
It's possible, in which case it would be great…

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
I…as I said, I'm wondering whether instead it is the CDC/eHealth Exchange service, whose name I forget, but has a bunch of letters in it.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
So maybe what we could do, I'm…maybe you guys are going to get sick of me talking about this notion of proposing some orchestration patterns that the community adopt, but a RESTful pub sub orchestration pattern seems to me to be a great target to go to work on. And to get some consensus around what that looks like, the same way that the SMART platform is a great pattern to work on and the same way that asynchronous decision support that brings up an App in your face is a great pattern to work on. So maybe in our pushback for, particularly for what comes out in those middle and far right columns is start enumerating some of these orchestration patterns, and we can put pub sub there and say, yeah, we think that's a good model, but boy we need to orchestrate it…

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

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…because at the moment, it's not on anybody's roadmap. And we could add in some of the other things that we think will emerge in that space, like we were discussing in our previous meeting. I think we have some homework still to do to figure out what those are, but that would add value to the debate. I'm not sure debating SOAP versus REST is worth wasting a whole lot of energy over anymore. I mean, you know, it's just done; we're switching, so...

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yup. And, did we get through…I think we got through the section so now we're…

Janet Campbell – Software Developer – EPIC Systems
No…

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
We have one more slide.

Janet Campbell – Software Developer – EPIC Systems
…because…and that's actually…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
One more slide.

Janet Campbell – Software Developer – EPIC Systems
…really weird because they…first they say we need to adopt national standards for pub sub and then on the next slide they say, we need national standards for pub sub.

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

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
For query, yeah.

Janet Campbell – Software Developer – EPIC Systems
We adopt first then implement.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
We should…them and then implement them, yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
It would be, I mean, we could go out on a limb, as per Janet's concern about shifting versus rebalancing…

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

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…to sort of say, what do we think, particularly those of us who represent the vendor community, which is most of us on this call, what do we think the timing of that would look like. Like, when do we see those shifts occurring; I don't know if they've asked us for that, but we do have this 10-year…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
It's a roadmap, we probably should be thinking about that.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, so is it 2019 that we think we'll see more than 50% of transactions are…query transactions are done with discrete capabilities in FHIR. Is it 2018 or do we want to stay away from that? They didn't ask us, but I've only got 3 more months on that damn committee, so I'm going to tell them what…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…blow it all on that; go for it.
Janet Campbell – Software Developer – EPIC Systems
The majority of this call bid on the DoD thing where we already had to do this, right? One of those…

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah. Yeah. Yeah, it's not like we haven't thought about it.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
All right. So…

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Just…can I do one more comment on these L2 slides.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Sure, sure…

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Go back to…yeah.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
Can you go back one slide?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Slide 20. I just want to get…

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
One more slide.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…to see if I read this the wrong way. So this says, ONC will identify, HIT developers should adopt a minimum set of common transport standards to enable priority learning health system functions. And the next point is SDOs should update standards and HIT developers should adopt as needed. I wanted somehow to capture the notion that standards ought to evolve…

Janet Campbell – Software Developer – EPIC Systems
(Indiscernible)

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…based on the demand for their need rather than that we wait for an SDO to tell us a new standard and we're supposed to go use it. It's a much more iterative process than that statement implies. Does that

make sense at all? I mean, we need standards to evolve with actual use patterns and as needs arise rather than a V3…that we've all lived through.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
This is Arien; I think if you look in the governance section there is some discussion in the standards section of governance about an implied governance process for setting priority learning health system functions or national…identified national priorities, as we've called it in the S&I Framework task force. And then there's a big huge how question that I think the S&I Framework joint task force or task force is trying to take on, which oddly overlaps with the governance section in the roadmap, which is sort of a note to ONC. So, I just wanted to provide that framework as well.

Janet Campbell – Software Developer – EPIC Systems
Isn't there though kind of a pattern for this already? It sounds like David, that you're just saying that they kind of missed step zero which is from lessons in the field, people propose addendums and extensions…

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

Janet Campbell – Software Developer – EPIC Systems
…and other parts of standards and it gets balloted and then we all…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
That's absolutely true; I'm just, by the way, amusingly looking at L1, bullet 1 which says, ONC will identify and HIT developers should adopt, which…

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
When has it ever worked that way?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…which is a little bit funny.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, I mean, I'll be happy if the word iterative and pilot are somehow worked into our responses there. We want to use these things, we want to improve on them based on experience and need; you know, the stuff that's going on with FHIR now as people are starting to actually try to build systems and they're coming back and saying, wait a minute, this doesn't work. And the developers are going, oh, good idea, we'll fix that. I mean, that's what needs to be happening. And that doesn't stop, it goes on for the next 10 years, so, we'll have to craft language that just captures that iterative nature. I'm not saying anything controversial, but it just struck me as odd this is a waterfall model where the water is flowing uphill.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
That's right and yeah, so I just also want to comment to ONC that actually this section overlaps substantially a), with the governance section of the roadmap, in particular the governance of standards section and b), it overlaps with the ask for the S&…or at least what we've taken on in the S&I task force where we've explicitly looked at this notion of what an identified national priority looks like and how you know you got one. And I think we've pretty clearly stated that just because ONC says it or just because some federal partner says it, doesn't mean you've got one, it means that you've got a group of

stakeholders who represent all of the involved stakeholders who says this is a problem that wants to get solved.

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
So I would propose actually just…I think this section's actually misplaced and I'd ask…I'd do an ask back to ONC relative to what the ask is here and what the ask is here relative to the governance of standards section relative to the S&I task force.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Or just tell them what we think how the process should work. I mean…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
We could do that, too.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…because it'll be a little mix of…there will be some cases where ONC will create…ONC or perhaps CMS will create the demand…

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

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…out of whole cloth and the community will have to scramble and react with a new standard or, I'm thinking of the CMS requirement for screening of radiologic procedures for appropriateness, just out of the blue, a new requirement, no standards to back it up.

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

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
We're going to have to go craft one somewhere.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
But David, David, I think we've already got that…

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…in our mandate for the S&I task force, which is why I'm asking ONC to just clarify…

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…with regard to this mandate, the S&I task force mandate and the as yet unassigned governance comment mandate; who's got the ball?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah. Yeah and I just think that we should weigh in with a degree to which we think responsible API development is an iterative process…
Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yup, totally agree.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…and not top down. So, where the initial push comes from is going to vary based on how big the stakeholder is, you know, and when CMS says do it, okay, that's pretty big. Anyway, good, I think we got the spirit of that, apologize for…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
If CMS says do it, the answer is yawn; CMS says do it or you don't get paid then the answer is, okay.

Janet Campbell – Software Developer – EPIC Systems
Just real quick, since I know that we need to go to comment…here, I think in terms of homework what we need to do, we actually had some sort of significant changes that we were proposing to this section and that might mean that we wouldn't be commenting on the things that we thought we were going to comment on. Is there some way, after this meeting, we can get kind of a more specific homework charge so I know what to do?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yeah, so maybe I can propose that David and I and Debbie work offline and take some of the comments that we had in this meeting and try to put together a framework for comment. I think we've got a notion of APIs are…API space are things that want to get done regardless of how. And transport probably needs to be combined with data content because you've got to package all three of those to implement the thing that wants to get done. I think that's one kind of meta-comment.

I think there's a reflection of the current state and the fragmentation and kind of mess of the current state; a reflection of Janet's notion of rather than shift, rebalance and some thought process for how that rebalance might take place. And then particularly a reclassification of some of these things that are in transport that actually really belong in higher…

Janet Campbell – Software Developer – EPIC Systems
(Indiscernible)

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…level architectural patterns or orchestration in the API section of things that want to get done.

Janet Campbell – Software Developer – EPIC Systems
Yup.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
So at least that's my mental…that's my mental tracking of the things we've been discussing…

Janet Campbell – Software Developer – EPIC Systems
Yeah…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…as a process and as a…at least a first step for how we would recharge ourselves.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, and so what we can do maybe Arien is basically consider the presentation that we're going to have to deliver in whatever timeframe that was, April or whatever, and just work…let's just start putting that presentation together…

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

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
…and say here are our slides and we'll start out with a little bit about how we are thinking about the Internet model of composable, expandable standards. We'll do a little bit of that background framework framing and then dive into some of these principles of where we see these particular API and transport standards evolving over the next 10 years and the appropriate degrees of rebalancing that we will expect the vendor community to have to support. Yeah, anyway, I think that's what you just said, I'm saying it to myself to lock it in. So let's…yeah, we'll put together our report and work backwards to the actual report.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Other comments from the J/G team…the jg team?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
So do we go back…, this is Debbie; do we go back to slide 22, the last slide I think? One more slide; there we go. So these are the last, HIT developers should widely implement national standards for query. And HIT developers should widely implement national standards for pub sub and national standards for RESTful web services. So I know we started talking about this, but…

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
No, yeah, I think we already got that captured in our framework…

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

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…and comments already. Can we go to the next slide, which probably should be public comment, is that right? Oh, process and assignments, Michelle…

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
We blew that up.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Okay. We talked about this already, you're right. Cool. I'm glad we went on the journey that we did because I think it was very productive.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
So before we wrap up, we're going to open up to public comment and then wrap up, is that okay?

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Yes, please.

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

Public Comment

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Lonnie, can you please open the lines?

Lonnie Moore – Meetings Coordinator – Altarum Institute
Most certainly; and 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 telephone and would like to make a public comment, please press *1 at this time. Thank you.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Thank you. All right, let's…

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
So while we wait, it sounds like we're going to do some work offline and follow up with all of the workgroup members for their feedback. So we have a little work to do before then.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Oh sorry, and we do have some asks for ONC to better coordinate.

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 I think the two asks that I remember, number 1 is, where did pub sub come from?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
Yeah, I have that question.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Number 2 is to clarify the responsibilities relative to standards governance relative to bullet 1 of L1…

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
The task force…yeah.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
…and relative to the S&I task force mandate.
Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
And finally to go back through the questions and organize between…

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

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
…the transport, the current state and the shift/rebalance. And then David kind of, he's thinking about how we're going to write our recommendations already, he's already…it out for us.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
That's right, work backwards.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
That didn't mean I'm going to do it, I'm just going to think about it.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
No just it sounded like the JASON to me.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Well it is, that worked pretty well to just…

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
It did, it did.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
….keep iterating on a report because we don't have a lot of time and there's no right way to do it.

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

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
There is no public comment, just so we all know.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Excellent. Well let's give ourselves…and I think we've got a plan and let's give ourselves 8 minutes back in our schedule, unless there is additional workgroup comment before we close.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Sounds good to me, I don't have anything else. I don't have any other off…never mind.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
As always, thank you David and Arien for your leadership, we appreciate it.

Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation
Thank you, as fragmented as it was today, thanks.

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

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Have a good day, bye.

George Cole – Principal Scientist, Community Solutions – Allscripts
Thanks everybody, bye, bye.

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