NwHIN Power Team
Draft Transcript
September 19, 2011

Judy Sparrow – Office of the National Coordinator – Executive Director
Hello everybody and welcome to the NwHIN Power Team call. This is a Federal Advisory call so there will be opportunity at the end of the call for the public to make comment. I'll do a quick roll call. Dixie Baker?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I'm here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Tim Cromwell?

Tim Cromwell - Veterans Health Administration – Director Standards & Interoperability
I am here.

Judy Sparrow – Office of the National Coordinator – Executive Director
John Feikema?

John Feikema – VisionShare – President
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Kevin Hutchinson? Wes Rishel?

Wes Rishel – Gartner, Incorporated
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Chris Ross? Ken Tarkoff?

Ken Tarkoff – RelayHealth, Senior Vice President & General Manager
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Nancy Orvis? David McCallie?

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Ollie Gray? Avinash Shanbhag? All right, did I miss anyone? And with that I'll turn it over to Dixie.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Hey, thank you all very much for dialing into what I hope is the last discussion of our conclusions and recommendations prior to presenting them to the HIT Standards Committee next week. In the slide deck that was distributed for this meeting I have incorporated all of the changes that we agreed upon at the last meeting and so I'd really like to just go ahead and move forward to the conclusions and recommendations so that we can hopefully work through all of those conclusions and recommendations. I also want to thank you guys for providing the off line inputs as well through the email and the various discussions that we've had. This power team has generated a lot of interest and I'm happy for that. We're getting a lot of comment about the earlier interim or preliminary recommendations that we made at the last HIT

Standards Committee so I want to assure everybody, the public that may be on the line in particular, that we've made considerable progress since then and we now are really working on our final recommendations.

So would, do I have control here, I probably do. Yep, yep I do. So, this, you know, the first slides just talks about the process we went through and our grid and so I wanted to just go ahead with this. This is the slight revision and actually we've significantly enhanced this one, of the one recommendation that we went through last week, or at our last meeting I mean, and this one is that architecture is important and the set of standards, services and policies that comprise the NwHIN must be deployable within architectural framework capable of supporting the secure exchange of health information at a national scale. So we really wanted to get in there the importance of scalability and that the components really fit into an overall architecture that achieves the business need of secure health information exchange.

We also wanted to clarify that the sub-bullet there is that, an issue that came up since our last meeting, is that some people weren't sure what we were saying about the, you know, the document standards and the controlled vocabulary standards so we wanted to make sure, and all of the standards that comprise really the specifications, so we wanted to make it clear that the standards, services and policies need to address the transport, security, and the clinical content including the standards for clinical documents and controlled vocabulary, and then to further clarify that we said that structured clinical documents and controlled vocabulary should be equally valuable regardless of the NwHIN secure transport use, and that conversely that any secure transport should support the full range of health information exchange from structured, and maybe incomplete from unstructured, and perhaps incomplete data to structured coded data. So, are there any discussion about this one, comments? Wes, I want to thank you again for your input on this one, it was really, I think it helped it tremendously. And yours, David.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I think it looks good Dixie, thank you.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Great.

Wes Rishel – Gartner, Incorporated
Okay, Dixie, I'm just a little bit behind here. You're on the slide deck is that right? Oh, you're on the screen and I'm trying to find it on the deck. Okay.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Its page 6 in the PDF but.

Wes Rishel – Gartner, Incorporated
Okay.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
But I'm not sure where it is in the slide deck.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah. Okay. So to number two. And this is our conclusion about adoption and it says that neither the exchange specifications nor the direct specifications have been adopted beyond their pilots. They have not been proven at large scale in production environments across a broad range of healthcare organizations. The scalability of the underlying architectures and the inherent impact of workflow need to be better understood before these specifications are codified into regulations. And then we said that once these specifications have been deployed at much larger scales across a broader spectrum of health care users they should be re-assessed against the criteria used in this exercise to determine suitability as a national standard. Comments about that one?

John Feikema – VisionShare – President

Yeah. This is John Feikema with the ability. I'm comfortable, I'm very comfortable with the conclusion, my only concern is not adopted beyond the pilots makes it sound like nothing has happened since January and I know that there are a couple of statewide HISPs, there are a couple of HISP markets, I'm seaking just of Direct, I can't speak with any certainty to the exchange side, but I know with respect to Direct there are some, there is a fair amount of work in production that's out there. I, again, agree that it's not broad enough for us to know whether those scalability issues are still there. So I'm comfortable with the comment, I might say, not broadly adopted beyond the pilots.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
That's what I was going to suggest. Okay. Let's make it broadly adopted.

Wes Rishel – Gartner, Incorporated
Just a question, not necessarily changing the wording.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

Wes Rishel – Gartner, Incorporated
In those efforts that you're describing, John, this is Wes Rishel, in the efforts that you're describing John are they to the point of production? I know of some states where they're on the agenda to be done but not that they've actually been, I mean there are a series of ones that we think of as the pilots for Direct that were listed in the implementation geographies at the start. Are there other places, other than those implementation geographies that have come up and into substantial production?

John Feikema – VisionShare – President
Yes, for example WISH in Wisconsin has a HISP that's in full production now. I can't say that there are large volumes of transactions going across it yet, but it is in full production and users are going through the enrollment process, some have gone through it and have already been enabled, so it is in production.

Wes Rishel – Gartner, Incorporated
Oh, great, thanks.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I wonder, this is David, I wonder if the phrase should be deployed rather than adopted, you know, adopting of the spec is not the test. We've been through that stage.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah. Yeah, I think you're right. I think we should change that to deployed. Is everybody else comfortable with doing that?

Tim Cromwell Veterans Health Administration – Director Standards & Interoperability
This is Tim Cromwell from the VA. I don't know, it might be that in the way you define a pilot. We're calling our program within an exchange, the pilot, but we have 11 locations wherein we are in, we are deployed, implemented, and exchanging. So, we're in production at these sites.

Ken Tarkoff – RelayHealth, Senior Vice President & General Manager
I think. This is Ken. I think, Dixie, I think the intent of the language was to say, you know, whether it's broadly deployed, but I actually like David's suggestion, but I think the point was to say there isn't enough market data yet for us to take the industry adoption and apply the criteria based on the level of experience in the market, and I think that's really the intent.

M
Agreed.

M
Yeah.

Ken Tarkoff – RelayHealth, Senior Vice President & General Manager
And so, I think it's not whether or not there's some good stuff going on that's taking you to the next level it's just hey the criteria that we went through and spent all these meetings focused on, we're doing it with limited sets of data points that are not at an industry adoption level for us to be, as to that level of confidence in the criteria.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
And that's what I think the rest of this says.

Ken Tarkoff – RelayHealth, Senior Vice President & General Manager
Right.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
They haven't proven it large scale and production environments.

Ken Tarkoff – RelayHealth, Senior Vice President & General Manager
That's why I was. Yeah, so that's what I was saying, is I think we can, you may want to mix the words, but we don't want to imply that there isn't good stuff happening, we just want to state if it's enough data. So, I was trying to.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

Ken Tarkoff – RelayHealth, Senior Vice President & General Manager
Trying to bring that together and say, you know, if we can change one or two words, I think we'd get that agreement.

M
Right.

Wes Rishel – Gartner, Incorporated
Well, actually, I think the words are fine. We might add something to the sense that although, oh I see it's adopted beyond their pilots that's the trouble here.

M
Correct.

Wes Rishel – Gartner, Incorporated
Yeah. So that, so I'd just say take out that, the Direct specifications have not been proven at large scale in production environments across a broad range of healthcare, you know, the, neither the Exchange nor the Direct specifications have been proven at a large scale, you know, and then that gives full credit to the work that goes on, at least by admission.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
But, it does lose, I mean, if we insert broadly there, that they've not been broadly deployed beyond their pilots I think that would allow for the VAs experience that, yeah it went a little bit beyond the pilot but it still isn't broadly deployed beyond the pilot.

Wes Rishel – Gartner, Incorporated
Yeah. Broadly is kind of a relative term. You know, as a, if each of those 11 sites had 10 providers they're working with that would be 110 providers that fill a small percentage of the total VA business. But, I just don't know why we have to get into judging it at all.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences

So, you think, so what you're suggesting, Wes, is that we go neither the Exchange specifications nor the Direct specifications have been proven at large scale in production environments across a broad range of healthcare organizations?

Wes Rishel – Gartner, Incorporated
That's right.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Is everybody okay with that?

M
Yep.

M
Yep.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Yeah. I like that.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
That's what we have. I'm making it in my other, you can change it.

Wes Rishel – Gartner, Incorporated
So you're not doing the changes on the screen, you're doing them somewhere else.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I don't think you can really, but.

Wes Rishel – Gartner, Incorporated
Okay.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I don't know how to do it so I'm doing it on my other. I don't think I can do anything, because this is a PDF document and it's not running within PDF and within an adobe environment, so.

Wes Rishel – Gartner, Incorporated
That's okay we're all psychically linked to your PC anyway Dixie.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah. Trust me I just made that change. Are there any other comments? Okay. Number three, and I'm purposely reading these, because I think it's important that we all hear each word and know how it's phrased. If a healthcare organization has committed to the use of SOAP based web services the exchange specifications should be considered as a potential solution for the secure exchange of health information, and then four is the same comment with respect to direct, if a healthcare organization is seeking a simple solution for asynchronously exchanging health information with another healthcare organization the direct specification should be considered. Comments?

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
So this is David. We haven't really debated these points very much and I don't really want us to open a new can of worms, but.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
But you will.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Well, I just, the only, I mean, I'm just trying to anticipate how others.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Oh, right.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Who have, you know, reading this with fresh eyes might react to it.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
You know, we focused on other parts of the report.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
But not this part. I wonder if SOAP based web service is the right rubric, I mean you could argue that it's IHE profiles, because it's really more than SOAP per see that would make exchange appealing, in fact, probably, most organizations would, as we've discussed I think in some other slides, prefer XDS as opposed to XCA, I'm just not quite sure what we get with number three.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
What we really want to say, we don't, we really want to say that if you've adopted either the exchange specifications themselves, or if you've really bought into, as your standard, SOAP based web services, I don't think we want to say web services because, you know, REST supports web services as well, but we want to say, if you've bought into, and it really follows onto our architecture comment in number one, if you've bought into a SOAP web services architecture then you should consider them.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
But, isn't it, I'm just thinking SOAP doesn't seem to be a strong enough foundation to make that decision based on. I mean.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Well, that's not the full decision. It says you should consider them.

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

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
It says you should consider them and I think what we're saying, we're really looking at the transport level, the very lowest layer of the stack and we're saying if the lowest layer of your stack is SOAP based you should consider them.

Wes Rishel – Gartner, Incorporated
Well, I think, the issue we're having now, I think is that, and this is Wes, that the, although we are in the actual detailed analysis we're proceeding level by level. We recognize that selling the value proposition and the actual specifications as they exist now are not very modular around exchange.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah.

Wes Rishel – Gartner, Incorporated
And that we, I think, so David's point is that you might well believe the web services is the future of interactions, but not, but to recommend, based on a transport level decision, a whole suite is a leap, you

know, so you might say consider whether something like, consider whether the, I'm off, I don't know, I don't have a particular…

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
We are saying, we are not saying if you've committed to SOAP based web services you should adopt exchange specs. We're saying.

Wes Rishel – Gartner, Incorporated
I know that. I know that and yet.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
We're really using SOAP based web service as a marker for an approach, an architectural approach.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Considering for considering…

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Or a technical approach.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah. Yeah. Yeah I would agree with you yeah.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
It's not, no one is going to do this just with SOAP its ebXML, it's, you know, the XCA protocol, or I'm sorry XDS/XDR profiles on top of that, it's an approach that has at the bottom SOAP.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes and I.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I think that's kind of our marker for a stack that is.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
You know, it's just, if you take it literally at face value it's kind of a dumb statement, because.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Well, we could say.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
SOAP by itself isn't very.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
If you're committed to use SOAP based web services as your transport, or we could use what you suggested, David, that really citing IH if you're committed to IHE profiles, but I think we need to say something of, this is a situation in which you should really consider the exchange.

Wes Rishel – Gartner, Incorporated
Yeah and I think David got to the situation pretty well. If you have organizations that have a, I'm going to avoid the word architecture, that have a business need that corresponds to the current, I don't know the right word, the Exchange stack or something like that, you should consider those, I guess that's kind of, it sounds like its circular in the way I'm saying it, but I don't think it is, it's saying that, you know, it's valid. I'm just trying to avoid the saying because you want a certain transport you have to buy into a certain architecture.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
But it doesn't say you have to, it says you should consider it.

Wes Rishel – Gartner, Incorporated
Yeah.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
It doesn't say you should, that this is what you should use, it says this is what you consider, and I would say, I mean you would never say if your healthcare organization is committed to SOAP you should consider Direct.

Wes Rishel – Gartner, Incorporated
Sure I would.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
For a different purpose.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
You could always use SOAP.

Wes Rishel – Gartner, Incorporated
I mean, right, but, no I think that we all, we're putting too much on the transport layer here.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah. I understand what you're saying, now how can we broaden that successfully, and I don't think that if you have a business need for an exchange spec you should consider Exchange specs says anything at all personally.

Wes Rishel – Gartner, Incorporated
Yeah. I agree. I mean it does say it's a little bit of statement, but not much. I would say that there is evidence that, oh, I'm sorry, I'm not going to be able to do this.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Here, so let me take a shot at it.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Not at the wording but at the thought here. So we've had a number of discussions recently about the successful deployment of some subsets of the Exchange protocol, namely XDS and perhaps, maybe XCPD but more likely PIX PDQ, which are parts of that family, they're in that HIE family, they're layered on top of SOAP and they have been successfully deployed at, you know, what I'll call enterprise scale.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yep.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
And if you're enterprise is committed to that, that it makes sense to stick with it, we haven't found any reason to say that that doesn't make sense. But, we're talking about in NwHIN, we're talking about.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah.

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

A much larger scale and a much more complicated deployment environment and that's where we've surfaced what we think are concerns. So it's almost like it's, you know, if your enterprise has committed to these profiles and they can be made to work at that scale and there's good evidence for that, is what's missing is evidence that they work at the national scale.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
So, do you want to say that if you're healthcare organization is well, that is saying, I know what you're saying now. Yeah, if they're already using the Exchange specifications then it's worthwhile to see whether those same specifications can be extended between organizations.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
But it's a technicality that the Exchange specifications per see don't include XDS.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
They include pieces of it.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
You know, the document submission part is, I'm sorry the document query part is straight out of XDS, but the document submission part isn't specified because you don't use Exchange, you don't use the NwHIN Exchange protocols to publish information.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
You use it to fetch information and XDS is a publishing protocol as well.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Right.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
So it's a little misleading to say exchange it's really, you know, the XDS.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Well yeah.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Family or the IHE profile for.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
IHE profile, yeah. Yeah. Okay, I understand what you're saying. So, if we said, if a healthcare organization has committed to using the IHE profiles for enterprise exchange they should consider using the Exchange specifications from inter and organizational exchange.

Wes Rishel – Gartner, Incorporated
Well, I.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I think it goes maybe further than we're ready to go, I don't know.

Wes Rishel – Gartner, Incorporated
This is Wes. I think that the statement is that the NwHIN exchanges are part of a suite of protocols that have been used to solve health information exchange problems and can we say that they've been proven to be effective at the enterprise and inter-enterprise level?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Intra-enterprise level.

Wes Rishel – Gartner, Incorporated
Well, that's I'm asking, do we have enough evidence to say at the intra-enterprise level without.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
No I would not feel comfortable saying that because this team didn't look, that was not part of our charter and I don't want to imply that it was.

Wes Rishel – Gartner, Incorporated
Well, wouldn't you say that we saw the, but here's the issue, the, we have intra-enterprise exchange going on through the Exchange protocols, we've already had the discussion about scale, but we have it going on.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

Wes Rishel – Gartner, Incorporated
Now that Exchange is drawn from a set of protocols that is also used elsewhere, you know, oh boy, I just thought.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Well, I think we have to be really careful and you've seen some of the email traffic that I have seen as well.

Wes Rishel – Gartner, Incorporated
Yes.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
You don't make statements about within enterprises or within regional HIE, because we didn't look at either of those. We need to make statements.

Wes Rishel – Gartner, Incorporated
Well, then why are we saying number three and number four at all.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Yeah, maybe we should just drop them. I mean, I kind of, I think that's what my real question was, is what do we gain by saying this; it's not really something that we studied.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
It's not, it's not that's right.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I mean I think, I think we, well I don't know we didn't discuss scaling of Direct to national scale though we, I mean we didn't really take that on one way or the other. We have certainly since it's layered on a protocol that has in fact scaled globally, we have pretty good confidenceDin it, but we didn't really wrestle with the distinction between enterprise use of Direct and national use of direct, so I don't know that we lose anything by just dropping point three and point four.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences

Well, I think what, the question is do we want to ever say anything about cases in, which the specifications that we looked at, we believe they should be considered and that's what these two are looking at is, you know, we looked at these specs and here is an example of when it might be suitable.

Wes Rishel – Gartner, Incorporated
But if the answer is going to be, when we get into discussing it, we didn't discuss that, or we didn't, we weren't, that wasn't part of our portfolio then I think the answer is no.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah, we didn't directly discuss this that's right.

Wes Rishel – Gartner, Incorporated
Yeah.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
You know and the XCA, XCPD profiles are specifically designed to go across institutions.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I mean there within the IHE suite there are better profiles to use within an institution and within an infinity domain where the institution has a reasonable amount of control over all of the decisions that need to be made there's good evidence that it can be successfully deployed.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
We weren't really asked to address that, although we want to be sure to make clear that we weren't rejecting that either, I mean we, it really was off the table for us, but at the cross institution national scale level that's where we ran into problems. I don't think that people would necessarily use XCA and XCPD within an enterprise; I think that's a mismatch also.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Right. So.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
On the other hand, Direct does scale down and scale up, but again that's kind of a no brainer and not particularly an interesting finding. I mean in other words, we can say it, we think, you know, email scales in both directions, but it's only good for a certain subset of an exchange needs.

Wes Rishel – Gartner, Incorporated
Well.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
You need more than just email.

Wes Rishel – Gartner, Incorporated
Can we sort of directly take on the thing that I think I, I believe Dixie is trying to get out of this, can we say our studies do not argue against the use of Exchange specifications or Direct specifications at the enterprise or intra-enterprise level, well I guess dDrect doesn't go with enterprise, at the intra-enterprise level it is simply focused on scalability. So, it's really redundant with the prior one, but it sort of takes any notion of any aspersion on either one off.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences

Well we could, now what we're looking at here, Wes, are just the conclusions and recommendations. This isn't like what I'll present next week. So maybe in our deck that we, in our presentation to the full committee we make it real clear that we looked only at the use of these specifications between, you know, at a national level.

Wes Rishel – Gartner, Incorporated
Yeah. So, I think right now three and four have not had substantial discussion although we did skirt the issues when we discussed architecture, the problem being that they are such different, these two things are such different beasts in terms of sort of their fundamental capability simply describing them based on their transport level.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

Wes Rishel – Gartner, Incorporated
Does, I'm not comfortable with that; I think some other people are not comfortable with it.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay.

Wes Rishel – Gartner, Incorporated
So, I'm just trying to either, either we drop it or we find some phraseology that's easy to accept that makes it clear that we're not casting aspersions at the lower level.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah, that's what we're trying to do here, exactly right. So, if we remove them and I include in the presentation, making it as clear as I possibly can, that our focus was at the national level not the enterprise or regional level would that be okay with everybody?

Wes Rishel – Gartner, Incorporated
Yes.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I think that's what we're asked to do right.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yep, absolutely and I will fix that. Okay. All right got it.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Hey Dixie, this is Chris Ross, I'm sorry I joined late, I apologize, are you talking about conclusions and recommendations number three and number four?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah. I am, yes.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Okay. You've probably already beaten this to death. May I ask just a quick question and indulge your patients because I've just been listening for the last few minutes. My problem with three and four was where it said, it looked as though with selection criteria, that if a healthcare organization is committed to this then Exchange would be good. I think Exchange might be good for people who have not committed

and similarly Direct might be good for organizations that are doing more than seeking a simple solution for asynchronously exchanging health information. Is that in the nature of the conversation so far?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah, it really is, and the conversation really got to the point that you're making really, that we really haven't discussed these two, this, you know, when Exchange would be suitable and when Direct would be suitable, we really, and you make the point about criteria, you know, this wasn't part of our criteria.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
It's just when I read this it implied as though and organization should find out if they're on path A or path B, and if they should go down path A or path B, and I think we've avoided that elsewhere, and have described, you know, maybe a use case level as opposed to an organizational, you know, sort of choice level. So, I apologize if I'm re-plowing ground by being late, or confusing, but I just had problems with three and four because it seemed to separate organizations into two camps.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah. So, what we just concluded Chris.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Yes.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Is that we would remove both three and four and in the body of the presentation to the Standards Committee next week I'll make it very clear that our focus was at the national level not the enterprise or regional HIE level.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Thank you. I'm now up to speed. Apologize for the delay.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
And you would be okay with that?

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Yeah I sure would.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Yeah, this is David.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
For five. Now this one, I'm sorry.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Dixie, this is David, I think Chris introduced another concern that we should be careful to be attentive to, which is in no way are we setting up and either/or choice between Direct and anything else, and.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah that's a good point.

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

I think some people have read our slides to suggest that we're saying, you know, Direct will solve all your problems and you don't need these other things. And we're not saying that at all. And if there are any slides that tend to imply that we need to fix that.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah that's something else we can make it real clear in the body of the presentation.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Right. I think they address different use cases and different needs and whatever, but, you know, Chris read three and four, points three and four as either/or and we certainly didn't intend that but that was, we have to watch for that everywhere else.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes. Yes. Yeah that's a good point. Actually, that's another reason for not including these two because by just having two separate things it sort of subliminally implies that.

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

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
I think there's a lot of people in the industry who are probably looking to see if we're going to recommend method A or method B.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I think.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Or both and whether, you know, we're going to be clear about either on a use case basis or an organizational characteristic bases or something crazy like that.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
And I think unfortunately we're giving a much more complicated recommendation than, you know, narrow gauge or wide gauge railway.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah. Yeah. Yeah, I think it's a good point. Okay. Number five. This really gets into the whole exercise that we went to, and went through the scoring and the grids, etcetera. So, our conclusion is, well that's, is that the Exchange specifications are highly complex and designed to support an architecture that may not be appropriate for all healthcare organizations, and that may not scale to nationwide implementation. That should probably be deployment right? Nationwide.

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

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Let me change that while I'm thinking about it. Okay and then it cites some specific evidence for making that broad statement, and the first one is some quotes from some of the testimony that we got too many layers, debugging is very hard do to the complexities of layered approach, all layered protocols have this problem but this is the most complex we've encountered. The second is the problem of version skew that again our testimony brought up where, you know, the standards are embedded in the specifications and

so it's difficult to control the version skewing over time. The third is that, third bullet, sub-bullet, patient discovery specifications is problematic and cumbersome and presents a "serious challenge to scalability beyond a limited pilot." And that was from our testimony. Patient matching challenges also disrupted the provider workflow.

Then we get to the NwHIN query for document specifications and it posed operational challenges such as there's no agreed upon way to query for specific items, doesn't handle images well. C32 definitions are not precise enough to allow seamless importing of external data elements. And the final sub-bullet is the retrieved document specifications method of accumulating query results; you'll remember this, across, because we heard this from a number of people, causes delays, huge messages, and frequent time-outs. So.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I think, we Dixie, we may want to put that may cause, because not all of them do. I mean depending on what the query is issued it may work well, but we heard cases where because of the design of the way in which the clinicians were using it they were running into this problem with some of the queries to the point where they would abandon the use of it. So, it's not an absolute concern it happens relative.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay. I've made that change.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
May cause.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Good point.

M
Is there a more precise way to describe layered protocols?

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Well, this is David, what we heard, one of the things that was a sort of a surprise to me, but we heard that something like the SOAP layer that you're using may be versioned independently from say the ebXML or the particular, well I don't think the IHE level, because that's governed by the top level specs. Some of the things that are not controlled by the IHE profile per see, the actual query and cross patient fetch, depend on standards that can change independently and in some of the implementations we heard that they weren't allowed to use the version of the lower level protocol that was in fact specified by the profile.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Maybe we mean interdependent.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Which one?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
…

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I was talking about the version skew.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah, version skew among interdependent protocols, we may.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Well, I mean they're all interdependent because they're in the spec, they're in the protocol.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah but it's not always, well it is, it's the dependencies that cause the problem.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Yeah and since the profile doesn't control all the layers.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
An organization may choose to move to a more recent version of one of the lower levels.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
And that causes problems. That's what we heard. Now I don't think we got.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah that's true, that's, he was specifically talking about the layered protocol, yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
And it was DoD I believe and you know, a decision, they're using a different version of I think it was SOAP protocols, I'm not positive which one they were, I could look it up in my notes.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
It was SAML.

Wes Rishel – Gartner, Incorporated
It was SAML. It was SAML.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Oh SAML. Okay, yeah, yeah, that makes more sense, because SOAP hasn't changed in a long time.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

M
My point in asking this question, Dixie, is that when we say layered protocols is it going to be automatically understood exactly what David just described or will we then be asked to describe what a layered protocol actually is? And the way that it was described was better than just saying layered protocols, but does the industry understand this term well enough that we don't have to go into definition of it.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Well, do we need to include layered at all for this purpose? For the presentation to the Standards Committee? Can we just put version skew among protocols makes it hard to manage widespread deployment?

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
How about among independent protocols because that's the point, is there any…

M
Yeah.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences

Interdependent that's what I said. It's not independent if they were independent it wouldn't be a problem.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Well, no because, okay I mean they're controlled out, by independent I meant in a sense of control. The spec, the stack doesn't have control over the lower, over the.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Over the standards that it invents.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Yes. It's the independence of the interdependent protocols that is a problem.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Because some of those protocols like SAML might be changed at the institutional level independently of their deployment of NwHIN and that caused a problem.

Wes Rishel – Gartner, Incorporated
Well I.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Now I think one could work around that problem maybe, but it sounded like it was an issue that they'd run into.

Wes Rishel – Gartner, Incorporated
Yeah you can argue that it was more a case of not having kept up with the industry. The problem I have, I guess, the real problem is that not all protocols are, I mean I'm trying to think of what would happen, what was a similar vulnerability in direct, and I can't because it's absolutely clear that you can't change SMTP in an incompatible way, it's a five year adoption cycle for the industry at least, but I don't know, I guess I'm trying to be too precise here.

M
You know the problem is our testifier used the phrase "layered" which has.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah that's.

M
You know, has lots of interesting ideas to it, but you know, all sometimes layers in computer science means something different, you know, you know, it could be computing stacks and so on. In this particular instance I'm not sure that layers is a super accurate description of the protocol problem here.

Wes Rishel – Gartner, Incorporated
Well he gave us; the testifier gave us a specific example, so I don't think we need to quote his words.

M
Right. Right.

Wes Rishel – Gartner, Incorporated
And I think the whole notion of layers has always been more a descriptive one than a definitive one.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
But it does in this sense refer to the independently versioned components of the stacks.

Wes Rishel – Gartner, Incorporated
Right.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
And the fact that those.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay I like, why don't we just put that David, independently versioned protocol.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
In the stack.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
In the stack. Right.

M
Yeah McCallie is clearer I think having the quote in there is somewhat useful even though layered is not accurate, I think that quote is, it's actually awfully good, and we're just going to translate that into something else.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Why don't we just put quotes around layered protocols and then we'll put in parenthesis independently versioned. Like that?

M
Yep.

Wes Rishel – Gartner, Incorporated
I prefer, I'll go along with the group.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Or independently managed we could make that too.

Wes Rishel – Gartner, Incorporated
I think independently version, somewhere back in this thread in the last three minutes I think we had the words that were perfect and I kind of feel like we moved on.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay.

M
What were they?

Wes Rishel – Gartner, Incorporated
I don't remember, what was the quote from McCallie that you were talking about Chris.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
He said.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
I said I think what Dixie's about to say.

Wes Rishel – Gartner, Incorporated
Oh.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
The problem is that, I mean the idea is that someone would then say well what's the solution and part of it would be, oh well let's just make sure that the versioning is tighter and that we move all these protocols together and, you know, in some ways that's a challenge too because you could have nicely defined protocols but unless the versions all stand on top of each other they don't work well.

Wes Rishel – Gartner, Incorporated
Well, I think Chris what you just said is my concern as well, which is that I don't know, the reason we're interested in independently versioned protocols is that we want these things to be built on things the entire IT industry is using rather than them being specific to healthcare top to bottom, you know, we don't want to go back and redefine the electrical characteristics of a cable-like DICOM started to do years ago. And that carries with it this risk and the risk is not that there's only a single current version, the risk is that there will be multiple versions in use in different organizations at the same time because they won't all cut over to a new version. So, I think the learning is not so much that this happened for SAML, but that it's always, it's always a potential to happen for any protocol. I mean arguably the two cures or the two best practices at least, are to, either to, well the one best practice is to build primarily on mature lower layered protocols, I mean the problem with SAML arguably was that it didn't have enough industry presence to prevent it from creating an incompatible version too. Whereas, you know, it's just not, it's not feasible to build a non-incremental version of SMTP anymore, there's too much usage.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
But you could argue that, you know, one conclusion from this is to minimize the number of external protocols on which you're dependent.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Because if you don't do that you run into this version skew problem. The trade off is, on the other direction, obviously, you know, you end up creating something that's "non-standard" and for whatever reason we ran into a version skew issue.

Wes Rishel – Gartner, Incorporated
Right.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Of all the choices that are in the current NwHIN stack and that's something that either has to be acknowledged and dealt with through administrative management, hence the administrative complexity, or changed by relying on fewer externally specified protocols.

Wes Rishel – Gartner, Incorporated
And I buy that up to the point where the answer to relying on fewer externally specified protocols is defining your own protocol.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Well, I mean, you know, so you pick your protocols that are really, really, really stable like SSL and HTTPS and then you write your application stack on top of that rather than depending upon a bunch of other people's application stacks. Now, you know, it's always a trade off.

Wes Rishel – Gartner, Incorporated
Yeah.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
And I don't know that you could ever avoid version skew but it surfaced as a significant issue.

Wes Rishel – Gartner, Incorporated
Oh, I think we want to observe the issue, the question is.

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

Wes Rishel – Gartner, Incorporated
Do we have a valid recommendation to accompany our observation?

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Well they didn't ask us for that.

Wes Rishel – Gartner, Incorporated
Well then let's just.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
We did recommend that they look for alternatives for these. So, I think that, I mean we weren't asked to provide solutions. And in the next slide we'll address that.

Wes Rishel – Gartner, Incorporated
But, yes.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I'd like to suggest we use what David just said, which is externally specified, so that this would say version skew among "layered protocols" and then in parens externally specified makes it hard to manage widespread deployment.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Agreed. Totally agree with that. What I would say is, per the last conversation though, I think we're missing the ant at a picnic and we're focusing on the ants here, the.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
The solution here is, feels to me, is in the headline Dixie as you wrote it, which is the specs are highly complex and designed to support and architecture that may not be appropriate for all healthcare organizations. And the issue is, and I think, if we sort of don't call it out, and if we ignore it, may not be obvious, which is Exchange was intended to provide for highly synchronous enterprise level integration between complicated entities, whereas some other architectures don't try to achieve that. Direct doesn't do that and some of the things that are listed in the last recommendation around REST specifically acknowledge, the fact we've got big complicated entities we can't wire them together at detailed detail node to node level without a huge amount of engineering and that's been the whole debate about sort of enterprise class, you know, computing verses internet class computing is that they come from a different kind of view-point altogether and NwHIN Exchange really does come from a view-point of I can wire the whole frigging DoD and VA together at a node to node kind of level and to do that I need to build this, you know, technology stack that is elegant and complete but it's incredibly complicated, and I think, I don't want to get into too many, you know, kind of normative things because I think it maybe beyond the scope, but I think we should at least acknowledge the fact that these models came from very different places with very different purposes.

Wes Rishel – Gartner, Incorporated
Yeah. Chris can I build on that a little bit.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Please.

Wes Rishel – Gartner, Incorporated
I think that in a way what we're arguing is that the functional ambition of the two efforts dictated different approaches. I mean, I cannot get behind saying here's a group of people that need to define security assertions and they should make something up instead of use SAML, all right, to me that doesn't make any sense. You can argue that the functional ambition has to be matched to the maturity of underlying technologies, you know, you can argue that they, that the ambition of the project was more than the maturity that SAML supported and for sure XACML, you know, but, but, but I, so I think that sort of a finding is that picking your battles or taking on a level of functionality that can be solved with mature generic to all of IT technologies, somewhere in there, there is a finding, despite my not being able to articulate it.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay, let me go back to Chris's comment. Chris, I think you made a really good observation and I'd like to suggest, getting back to our slides, that we consider inserting complex before architecture at the top, designed to support a complex architecture that may not be appropriate for all.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Yes and I think it would be helpful, Dixie, that if you either put in a, you know, explanatory bullet or simply dealt with it orally when we do our presentation, is to kind of talk about the genesis of Exchange that it was really engineered for a particular type of problem for very complicated institutions, and if it's complicated it's not because we haven't worked hard enough at it, it's because it's trying to crack a, you know, an Apollo class problem.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
So this is David. I want to, I, maybe I want to go eat lunch, I don't know, maybe, I don't, I think the Exchange is actually trying to solve a fairly simple problem, but it did it in a complicated way and that's it's failing. It's actually, I mean it's the absolute bare minimum of capabilities that you'd need for exchange. I think the problem that needs to be solved is much more complex than what Exchange addresses. Exchange's problem is that it solves a simple problem in a complicated way.

Wes Rishel – Gartner, Incorporated
I'm going to have to disagree a little bit there. I think that it, I mean exchange was based on the theory of a paper that I wrote, that said that, that implied that we could resolve security ascertains and role oriented restrictions on functionality at the international level and certainly some of the complexity comes from SAML and XACML and things like that and I don't. I think that that was, that we were just, we were ahead of technology at that point.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
But Wes we didn't, the problems that we heard about occurred way upstream of SAML and XACLML.

Wes Rishel – Gartner, Incorporated
Yeah that's true.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I mean we didn't even get close to that complexity.

Wes Rishel – Gartner, Incorporated
You're right, you're right. You're right.

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

We got stuck on the inability to get a simple list of available documents in a quick return and the ability to click on the one that you wanted to read and be able to read it and/or download it.

Wes Rishel – Gartner, Incorporated
And we're sure that.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
…for granted as the trivial thing to do.

Wes Rishel – Gartner, Incorporated
All right so.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Yet with all these layers and stacks it couldn't be done.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay, okay, I don't want to rehash this whole thing. I've made some changes to this particular slide. I've inserted complex in the beginning. I've changed the layered protocol…and changed may cause. I suggest we go through the rest of our recommendations and if there are other additional ones of these general comments that we want to make, once we've been through all of the slides, then let's address it then okay.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Okey-doke, sorry.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay. This one, because I think some of your concerns are addressed in some of other recommendations, but I don't want to leave any concerns unexpressed.

M
Keep us moving, Dixie, thank you.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
The Exchange specifications present opportunities for simplification. So this is our slide where we get into the specifics of where the complexity needs to be reduced. We start by saying that we identified the two specifications that were judged low, the business need that really is embedded that these specifications address was judged low in our analysis, and that's the HIEM and access consent policy specifications. Second bullet is that the web services registry specifications needs simplification. It's a moderately mature specification that uses technology in its declining phase of a lifecycle and we note that the S&I framework team is already considering alternatives to this spec. The third sub-bullet is the authorization framework specification which we judged highly complex and that alternatives exist that should be considered such as OAuth. The fourth is the patient discovery specification and the query for document specification. The patient discovery specification we, in our last slide we gave specific examples why it was highly complex and we also gave examples of why the query for documents presented operational in workflow challenges. So, we say here that they, that there is a need for a more scalable architecture to support patient discovery and we say because the query for documents, patient discovery, and retrieve documents are usually implemented together any alternatives should be considered within that context of all three of them. So, are there other things that we should say, are there things there that we shouldn't say. Any suggestions?

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Dixie this is Chris. I think the only, I think this is great, the only is literally the grammar of the heading, I wonder if what you really mean is there are opportunities for simplification of the Exchange specification.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences

Yeah that's exactly what I meant Chris. Okay, there are.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
So opportunities for simplification of the Exchange spec.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Is that what we mean or do we mean there are opportunities to simplify the solution of the problem addressed by the Exchange spec.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Well that was the discussion we were just having, that aside, maybe, but I think what Dixie's listed here is, I don't think these around on simplifying the domain. I think these literally are around how to simplify the text around a given domain.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Well, but I'm, I guess Chris, what I'm getting at, and that's a great point, I agree. What I'm getting at is when you say the Exchange spec it needs to be simplified are you just saying that somebody needs to go an edit the current profile and we'll fix these problems or is the problem more fundamental, and I think we're raising questions, and it may be more fundamental. For example, the deployment, our bullet point one there more scalable architecture for patient discovery, that's not a profile problem, that's actually how patient discovery is done.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah, I agree with you, David. I see, there are opportunities to simplify the solutions, I'm trying to quote you here, the solutions represented in the Exchange specs is that what you said?

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I actually don't mind the way it currently is written because it doesn't say, I mean it says the Exchange, I mean you could say the Exchange approach presents opportunities for simplification and then we aren't really saying whether that simplification is done through changes to the spec or changes to the way the spec is used or in fact different specs.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
No but this slide is focused on specific specifications.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Okay.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
So, I think, okay I'm changing it back, I think I agree with you, I think it should stay like it is. The exchange specifications present opportunities for simplification.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Well, just grammatically that says that the specs themselves are generating the opportunities and I don't think that's the case, it's that the specs need to be simplified not that the exchange specs.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Yeah that's right.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Offer opportunities. I mean the issue is that both the domain, potentially the domain is too complicated, potentially the specs themselves are too complicated, but either way.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Oh, I got it, why don't we go the findings from this study presents opportunities for, identify opportunities…

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Yeah there you go.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay.

Tim Cromwell - Veterans Health Administration – Director Standards & Interoperability
Dixie this is Tim. On the bullets, the first bullet says two specs address needs judged low in our analysis, low what, low complexity?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

Tim Cromwell - Veterans Health Administration – Director Standards & Interoperability
Okay.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Oh no the needs.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Low need.

Tim Cromwell - Veterans Health Administration – Director Standards & Interoperability
Low need. So this is a slide about need?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
No it's just the first bullet, sub-bullet, the first step in our assessment, you know, we, I'll go back here, I'll show you.

Nancy Orvis – Director Health Standards Participation – Department of Defense
This is Nancy, Dixie, what slide are we on?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I just skipped back, can you see it on the screen?

Nancy Orvis – Director Health Standards Participation – Department of Defense
Yes.

Tim Cromwell - Veterans Health Administration – Director Standards & Interoperability
Yeah I can see it.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay. Tim, let's see, I think this is it, yeah. The first, the very first step is that we, you know, when we, if you look here, here's our method, evaluate them in the following factors, identify specs that provide capabilities for which the business need is low. So the very first thing we did is we looked down this column of need and we identified those specs where, that address needs that were judged low, and that is consent, policy spec, and the HIEM spec.

Tim Cromwell - Veterans Health Administration – Director Standards & Interoperability

Okay, so the purpose of the first bullet is just to sort of handle the only specs that were judged to be low need.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Exactly.

Tim Cromwell - Veterans Health Administration – Director Standards & Interoperability
And get them out of the way so that we can get onto the other ones.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Exactly right.

Tim Cromwell - Veterans Health Administration – Director Standards & Interoperability
Okay. So, would you consider putting low need inside of quotes there?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah we have need, two specifications address needs.

Tim Cromwell - Veterans Health Administration – Director Standards & Interoperability
Oh, gee, needs judged low need, okay that's fine. And then the next bullet then, don't you want to address need from moderate and high?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Need what? No we've gotten, the first bullet takes care of need, now we don't consider need anymore because everything else was either moderate to high. So we didn't, we got need out of the way and we just used need as a way to filter out ones that, well there's really no real need for this one so let's move onto the others. So that was our methodology.

Tim Cromwell - Veterans Health Administration – Director Standards & Interoperability
Right.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
So all of the rest were judged either moderate to high need.

Tim Cromwell - Veterans Health Administration – Director Standards & Interoperability
Okay if you feel like that it's clear enough by adding the table in there.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Well when we present this I will start out with reviewing the methodology but we didn't want to go through all of those preliminary steps first.

Tim Cromwell - Veterans Health Administration – Director Standards & Interoperability
Okay.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
But, when we present it we will. So it will be tied back to, well you remember we judged these low. I'm changing the introduction letter to the results from this study present opportunities for simplification okay. Are there other things? Comments?

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
No.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay, seven. Some areas are under specified in the current specification set and those areas were exchange or remote viewing of large images, this was brought up in testimony, discovery and retrieval of

data elements such as lab results outside a document context, more granular query capability for patient records such as show me the most recent ECG. And then we say addressing these needs may present opportunities to consider the PCAST Model for data discovery using indexed metadata combined with retrieval of a desired data element or object such as an image, a model that may be more scalable for patient discovery as well. So, this says a lot…Comments? Is everybody just getting tired? Okay.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
We may regret this slide at some point I suppose if things go awry but I mean how could you not pull these up as really critical.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah. Yeah.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
I think it's good.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay. Number eight is, and this is our last recommendation, so, industry is trending toward widespread use of the REST architectural style in designing network systems, presents opportunities, that probably should be this or something, presents opportunity to develop a new specification for RESTful exchange of health information. Sub-bullet, REST is not a standard but a style that uses the HTTP standard communication protocol to provide a simpler alternative to SOAP for accessing web services, not all RESTful implementations are implemented in the same way, just a statement of fact. Second, REST is not inherently secure but can be secured using standards such as TLS and OAuth. And then third, developing a specification for secure RESTful transport for healthcare exchange would provide healthcare organizations assurance that RESTful implementations built in accordance with the specification would be predictable and secured. Comments?

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
The only one would be on the last bullet, Dixie, if we could make specifications plural in both instances, developing specifications for secure and implementations built in accordance with the specifications would be predictable, and if you wanted to put the "s" in parens I suppose, but I think there is going to be more than one spec.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
You think there will be more than one spec for securing REST? I think more than one will have defeated the whole purpose.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Oh, no, well I didn't assume that that last bullet was referring to security of REST, I thought it was referring to all the things you could do with RESTful transport.

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

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
And yes, I do think there would be different specs. I think there could be a, just to make them up, a push, a pull, and a published, subscribed spec.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences

No what I'm suggesting here is to develop a single specification so that anybody who said, oh I have a RESTful secure, I have a RESTful implementation of my application for health, you would know that this is what they meant by RESTful and here's how they secured it. You're saying there could be other applications that were RESTful. I'm saying let's say this is how secure REST is implemented in healthcare.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Oh, so you're really underlying the word secure here.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
And REST. Because we found.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
No I get that, yeah.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah, we had multiple discussions about how, well that's not really RESTful, you know, RESTful is RESTful is RESTful, you know, because the term, there is no spec for REST right, it's a style of developing an application. So what I'm trying to say is let's develop one way to implement REST web services exchanges in a secure way.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Then I think we're maybe saying two things. I have absolutely no objection to the idea of a standard security model for REST web services even though, just like in the SOAP world there could be multiple ways and if this conclusion is TLS and OAuth that's fine. I think the second thing that I read in this bullet point, that I still think is appropriate, is that it would be quite possible to build specifications for, RESTful specifications for healthcare exchange that is above and beyond the security aspect of it.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I am saying it's beyond the security aspect as well, you know, how you implement a RESTful application, you know, before you say it's RESTful, you remember our conversations about this where.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Sure, sure, sure.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Someone would say oh this is RESTful and somebody else would say no it's not really RESTful, well you question whether its, you know, when somebody said, let's forget the security, but when somebody said they had implemented a RESTful application that you would know what they were saying.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Yeah. I think what I'm trying to do Dixie and the conversation may be simplified is to separate out development using REST, one of which relates to the technology stacks, and the second relates to the domain. And my point is that if our analogy is that SOAP has been used to support a whole bunch of domains in for example NwHIN and that SMTP has been used to support a bunch of different things you could do with direct, in a similar fashion there may be more than one specification, a broad range of use cases that RESTful transport for healthcare exchange could support and that it may be useful to define what those are above and beyond the tech level, but also including the domain level, the reason being obviously that web services are very flexible and it would be useful to have for instance one spec for, you know, query associated with pull. I guess that's my point is that we might talk about the domains within REST as well as the technology stack itself.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
But you would still end up with a specification that there would be one way to do a secure RESTful pull.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Yes, but the use cases for pull maybe different than the use cases for push or for publish, subscribe.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Right, right.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
And that you would need more than one spec.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
That's my point.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah, I see what you're saying.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I think you two are using the word spec in a different.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Yeah, I agree, agree.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
You know, different granularity and I mean I think the question here is if you wanted to replace the current NwHIN exchange specifications, the set of them taken together with a RESTful equivalent I think Dixie's point is you'd want to do that in a standard way so that you had the interoperability and the security that you needed.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Exactly right.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
And we're saying that's something that merits consideration because of the simplicity of the RESTful approach, the emergence of stable protocols for securing it like OAuth and its widespread, you know, proof of scalability that you know, it is an inherently scalable protocol because of the way it handles state. So that's why we say we should consider it, but it's a big job, I mean it doesn't exit, right?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
So if somebody wants to take that on it's a big job.

Wes Rishel – Gartner, Incorporated
This is Wes. Did we start out on a discussion of whether specifications should be plural or have we moved on from that point?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I don't think we've moved on I still think it should be…

Wes Rishel – Gartner, Incorporated
Well, I just think, I mean just by mentioning OAuth, where all the time I was thinking SSL, I mean, you know, I was thinking of a different level of security, just that alone indicates that specifications should be plural, I mean I.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Yeah it's a suite, it's a, I mean it's just like the NwHIN, you know, there's what eight formal ones, each one of which is made of six layers or whatever, so there's a lot of detailed specifications inside, but it's one suite called NwHIN Exchange.

Wes Rishel – Gartner, Incorporated
Yeah, I, if that's the only point then I hope we can agree on specifications being plural and move on.

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

Wes Rishel – Gartner, Incorporated
If we want to talk about recommendations or exposing the possibility of building up a set of specifications as complete as NwHIN based on RESTful protocols than I've got some issues.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah, that's not what I was.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Well yeah.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I was intending to capture exactly what David McCallie said, is that, you know, if you wanted to implement all of the, you know, anything, any application, healthcare application, and you wanted to say I've implemented these web services using secure REST that you would know that's what this means.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
That makes complete sense and David and Wes are speaking for me better than I could as usual. I think the philosophical issue here is that often times people who program in RESTful protocols are trying to solve slightly similar problems and sometimes delegating more of the complicated tasks to the end notes whereas typically SOAP implementations tend to bind two entities more closely together. I know that that's a generalization but somewhat true and I think philosophically the idea is that this REST architectural style is not likely to go down the path of NHIN Exchange to be very particular around specific domain implementations. So in essence I completely agree with David and Wes.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay and I'll change it to plural, or I've changed it to plural and an "s" in parens. Okay. That was the last of our, I think, I think that's last of our recommendations then we move to glossary. Chris did you have an opportunity to look at the glossary? What I've included in here are the, the first is the, I thought I had a title for that, but the first are the criteria that were used, exchange specifications, this is an old version I've updated this, but what basically it includes and I've organized it a bit differently are the definitions of all the Exchange specs and the direct specs that Avinash defined in our last version that we presented to the committee, so it includes that. It includes the definitions for the criteria and let's see, anything else, let me think. Well, I have it right here let's see. PCAST.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
The one that I think I was, I think these are fine. The one I was sort of pushing for last time was to make sure that we mean in this document that NwHIN is not equal to NwHIN Exchange, that NwHIN could include a variety of protocols that could include NwHIN Exchange direct or RESTful interfaces, and if you felt inclined to add that to the ONC definition, that for purposes of our conversation we were thinking that NwHIN was the superset of Exchange, Direct and REST.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
That that would let me get off my soapbox and God knows we want that, we want that.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
So you want it to say that it includes the term, let's see what does it currently say, because I'm sure that that's even though I've reorganized it we've got the NwHIN here. I just include the ONC definition.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Yes.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
You want to say that NwHIN includes the, a number of specifications or something like that. What do you want to add to that?

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Maybe something like for purposes of this evaluation we use NwHIN to mean potentially the set of protocols including NHIN Exchange, Direct and RESTful protocols, to make it clear that I think, for purposes of our conversation, we were thinking of it as an umbrella over all specs.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciencs
So, yeah, I would say the Exchange specs, Direct specs, and other specs approved for NwHIN Exchange or something.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
For NwHIN. Let's maybe without the word exchange.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah. Yes.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Yeah, I think that's right, I just think we want to get across so that someone reading this independently wouldn't think that we were somehow using those.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah, I know what you mean.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Synonymously, yeah.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay. Now let's go back to the discussion that we were having about this slide, the Exchange specifications are highly complex and designed to support a complex architecture that may not be appropriate, blah, blah, blah. And we had, we got in a conversation about this and I want to make sure have we touched on the key points that everybody on this Power Team wants to make, conclusions and recommendations? Are there other conclusions and recommendations you want to articulate because now's the time to say so.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Dixie this is Tim. I'm glad you came back to this slide I was going to ask you to do that. So I just want to put this out there and see what the thoughts are on this. I think there's no question that this slide and the next one are going to be sort of salient findings and, you know, get most of the attention. And when you look at this slide it looks like patient discovery and query for docs are the two most important critical elements that must be solved for the NHIN Exchange, but I think that painting them with the same brush and indicating sort of implicitly that they are of the same import and the solution, you know, it's the same is not correct and I think that these two, these two challenges are solved differently and they're solved at different levels. And what I mean by that is that the query for docs specification is something that is, has a, can be resolved by more work under the S&I framework and, you know, continuing to find solutions amongst those of us who are exchanging documents already. What I mean is that I agree that being able to have a, one little button that says I'm searching for most recent EKGs is a nice to have, but where we started was exchanging the C32, and exchanging the C32 is a good starting point, it's not where any of us want to end up, but it is a good foundational set of clinical elements to exchange with one another, and it will provide clinical relevance and value. And so, the, I think we can't solve the most recent EKG problem without first getting to a plateau where we're exchanging some baseline clinically relevant health data and I think that, you know, working on that is something that's worth all of our efforts.

The patient discovery specification is a different animal. It is something that the country needs to take on and solve not just a small group of us, of clinicians looking at you know, the solutions that we can, you know, that we can put forward. This problem is a show stopper for the Exchange and if we don't get this thing solved we will not get Exchange working in a large nationwide implementation. And so, I think the two are not equal in terms of level of effort and impact, and in certainty that they must be resolved.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
And Tim would you also say that patient discovery challenge applies also to Direct as well as Exchange?

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Well dDrect doesn't do patient discovery so much as it does certain messaging protocols that make sure that the right person is receiving the message.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
But they already know, by the time.

Wes Rishel – Gartner, Incorporated
Yeah.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
They get to Direct they already know who they're, yeah that's right, that's right, right.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Yeah, I think it's a little different.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah, yeah, yeah.

Wes Rishel – Gartner, Incorporated

Can, I'm having some crossed wires in this conversation from different people's statements, so you're statement is that Exchange is about, the way I heard it, it was about sending C32s, and what I heard David say there was no sending involved in NwHIN.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Well sending is not, if I said sending it's not the right word, it's responding.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Query. Query.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
It's responding to a query with a C32.

Wes Rishel – Gartner, Incorporated
Well, okay, so there's this issue of. So, your point is that there is a query for which the result is always a single document, which is the C32 patient summary, and therefore the issues that were described before, while important to the future are not necessarily show stoppers for all of use of NwHIN is that right?

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Well no not exactly. What I'm saying is that right now where we are in the Exchange with the health partners that we, you know, we're engaged with in, with DoD, VA, and the 11 partners in our pilots, the currency that we're using is the C32. So, you know, so it's not sufficient right now, it's not where we want to be.

Wes Rishel – Gartner, Incorporated
No, Tim, I don't mean to interrupt, but I think I understand that all right.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Yes. All right.

Wes Rishel – Gartner, Incorporated
But my question is are you defining the C32 to mean a patient construct, a system construct to the summary of the patient so that there is only one necessary per patient to reply or are you using the C32 to mean a record of an encounter that, so that there may be many C32s in a reply for a patient.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Well, if I understand your question correctly, our preference, VAs preference is to receive one constructed C32, but we also acknowledge that, you know, perhaps certain HIEs aren't able and will be providing us four or five C32s that represent their own hospital systems, that I regard as a interim state, and various technical providers are working on something that they call a dynamic C32, which is one C32 constructed of a lot of different clinical encounters representing their clients. VA produces one dynamic C32 that represents, you know, wherever the veteran has gone for care and so our preference would be to receive that sort of document back.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
This is David. I think that just sweeps the query problem under a different rug.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Now you have problems with huge C32s and no protocol to control how long it is or how you want to page your way through it.

Wes Rishel – Gartner, Incorporated
Well, but I, let's support Tim here. I think.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
No, I understand what Tim wants I'm just saying I don't think it solves the problem.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Well I don't disagree with you David. But, my point is in, that there's show stopper here and then there's a challenge that we can work on together and get to.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I gottcha, Tim.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
And the show stopper is patient identity.

Nancy Orvis – Director Health Standards Participation – Department of Defense
Yes.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
It's not document query.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
So we have here, Tim, we say for the query that it poses operational challenges, which is.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Yes.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Consistent with what you're saying.

Nancy Orvis – Director Health Standards Participation – Department of Defense
Well, but.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Now I think what we need to do is to make the statement about patient discovery more emphatic.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
That's my point. That's, and I wanted to put that out there to see what others thought.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay, so how would you suggest we make patient, you know, sub-bullet number three, patient discovery specification is problematic and cumbersome and you want to make it more emphatic so do you want, what do you, how would you suggest fixing it.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
And it must be solved before national implementation.

Nancy Orvis – Director Health Standards Participation – Department of Defense
Right, see I'm thinking. This is Nancy. I'm thinking of some words you used back when we first brought up this problem back in whether it was January or February, where you said there was no fail save patient matching, you know, and what I think we're trying to say is this is a huge risk if patient identification isn't done right.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Well it's partly the patient identification. This is David again. It's partly the patient identification but it's also not knowing where to go to find the patient at all, that was the scalability issue that we heard.

Nancy Orvis – Director Health Standards Participation – Department of Defense
Yes.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
So I think there's an accuracy issue but there's also a scalability issue both together need to be solved.

Nancy Orvis – Director Health Standards Participation – Department of Defense
Well you certainly can't merge things into a dynamic C32 if you can't properly identify the patient.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Yeah and if you don't know where their C32 components come from without asking everybody then you've got a real scale problem on top of that, that's the other point.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
So, if we said that the patient discovery specification is a major barrier to national health information exchange and then we said it's problematic, it's cumbersome, it's, there's no, you know, we say some of this to back that up. No failed save patient matching to back that up, but it started out is it's a major barrier to national health information exchange.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
I think that's accurate.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I think.

Nancy Orvis – Director Health Standards Participation – Department of Defense
Do you want to put something like, you know, prototyping voluntary patient IDs or something?

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Well, I don't think we're, well I don't know, Nancy, I don't think we're allowed to say stuff like that.

Nancy Orvis – Director Health Standards Participation – Department of Defense
Probably not.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
And I don't think that actually solves the problem either.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Right.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
I think the word show stopper, I wish I had my notes in front of me, but we may have heard that phrase when we were interviewing the implementers, we certainly heard something strong like that, it was a major barrier, a significant barrier.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Well why don't we call it a show stopper? Do we want to?

Ken Tarkoff – RelayHealth, Senior Vice President & General Manager
You could say. Dixie this is Ken. You could say at the risk of being a show stopper, you know.

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

Nancy Orvis – Director Health Standards Participation – Department of Defense
Risk at being a show stopper.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay that's what we said.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Dixie, we've hit our 1 o'clock time I think.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay. Yeah, we're going up on 1 o'clock. Okay. So if we do that have we addressed your concern Tim.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Yeah I think so. I…

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I know we're going up on time but I also don't want to have to schedule another meeting.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Yeah that's right.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Yeah. I will say yes.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
All right. Okay. I really, really appreciate you guy's work on this and I'm proud of the work that we've done. So with that, Judy.

Judy Sparrow – Office of the National Coordinator – Executive Director
Yes.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Can we open it up for.

Judy Sparrow – Office of the National Coordinator – Executive Director
Yes, absolutely. Operator can you check and see if anybody from the public wishes to comment.

Caitlin Collins – Altarum Institute
Yes. If you are on the phone and would like to make a public comment please press *1 at this time. 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. We do not have any comments at this time.

Judy Sparrow – Office of the National Coordinator – Executive Director
Okay, well thank you everybody. Good work.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yes, thanks everybody and I will, I'll send you out my redline that I've been preparing here just so you that you can look at, but meanwhile I'll be incorporating this into our presentation for next week. Thank you all.

M
Hey Dixie.

Avinash Shanbhag – Office of the National Coordinator for Health Information Technology – Director NwHIN

Dixie this is Avniash.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah.

Avinash Shanbhag – Office of the National Coordinator for Health Information Technology – Director NwHIN
This is Avinash I just wanted to on behalf of the.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Hi Avniash.

Avinash Shanbhag – Office of the National Coordinator for Health Information Technology – Director NwHIN
How are you, first of all like on behalf of…and ONC wanted to thank you for leading this Power Team for such excellent job and also thank the Power Team for their incredible insight…thank you.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Thank you.

Nancy Orvis – Director Health Standards Participation – Department of Defense
Thanks Dixie.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
Thanks Dixie.

Christopher Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Thanks Dixie.