

NwHIN Power Team Meeting
September 9, 2011
Draft Transcript

Presentation

Judy Sparrow – Office of the National Coordinator – Executive Director

Good morning everybody and welcome to the NwHIN Power Team call. This is Federal Advisory call so there will be opportunity at the end of the call for the public to make comment. Workgroup members please identify yourselves when speaking.

Let me do a quick roll call: Dixie Baker?

Dixie Baker, Chair, SAIC

Here.

Judy Sparrow – Office of the National Coordinator – Executive Director

Tim Cromwell?

Tim Cromwell

Here.

Judy Sparrow – Office of the National Coordinator – Executive Director

John Feikema?

John Feikema, Ability Network

Here.

Judy Sparrow – Office of the National Coordinator – Executive Director

Kevin Hutchinson? Wes Rishel? Wes is on. Chris Ross?

Chris Ross, MinuteClinic

Here.

Judy Sparrow – Office of the National Coordinator – Executive Director

Ken Tarkoff?

Ken Tarkoff

Here.

Judy Sparrow – Office of the National Coordinator – Executive Director

Nancy Orvis? David McCallie?

David McCallie, Cerner

Here.

Judy Sparrow – Office of the National Coordinator – Executive Director

Ollie Gray?

Ollie Gray, DoD Military Health System

Here.

Judy Sparrow – Office of the National Coordinator – Executive Director

Avinash is joining late. Did I leave anyone off?

Doug Fridsma, HHS/ONC

This is Doug Fridsma.

Judy Sparrow – Office of the National Coordinator – Executive Director

Good morning Doug. Ok I will turn it over to Dixie.

Dixie Baker, Chair, SAIC

First I want to thank everybody for joining our call, both the Power Team members and the public. I realize this Power Team has generated a lot of interest based on my e-mail and e-mails the other team members have received and we are very pleased about that. This is most definitely an important topic that ONC has asked us to address. As you know, today is the final meeting before we present our conclusions and recommendations to the HIT standards committee later this month, I believe the on the 28th. I think it is important based on some of the comments I received to remind everybody of the context of this work, the nationwide health information network, which the ONC has defined as the set of standards, services, and policies that enables secure health information exchange over the internet. The ONC refers to this set of standards, services and policies as building blocks, and has asked us to help identify what these building blocks should be. Some people have asked whether these building blocks will become standards for EHR certification for stage 2 meaningful use. Although clearly, the nationwide health information network will support meaningful use of EHRs, this work is not directly tied to stage 2 or to the meaningful use incentive, rather the ONC has told us that they plan to use the outcome of this work to help inform their decisions on how to invest in further development of the NwHIN. Like whether to invest in additional piloting or further standards development. In fact, I would note that many of the participants in the current NwHIN exchange pilot our federal agencies are not even eligible for the meaningful use incentive.

Today's agenda that you see on the screen focus on reviewing our updated scores grids and draft conclusions and recommendations. The updates that you will see on the scores and grids are based on the very useful inputs received at our last meeting from several individuals who are directly involved in implementing the exchange specifications for the DOD and the VA.

So unless you have any questions about the agenda, we will just proceed to the slide deck. You will recall in previous versions, we have this methodology that was introduced over a number of slides, and I just pulled the steps together to provide the big picture of the methodology that the power team used in this work. We began with the ONC to ask us to start evaluating the specifications that have been generated by the exchange and direct pilots on a number of factors. They are basically 10 exchange specifications, and these documents are available on the web. 10 exchange specifications and 2 direct specifications. We evaluated all of the specs of each of the specifications on the need for the capability that was specified in the specification. The maturity of the specification, the maturity of the technology that the specification used, the deployment and operational complexity, both how difficult it was to deploy or easy it was to deploy and how difficult or easy it was to operate it over time. Industry adoptions where industry is the industry for which that specification really is targeted, and then available alternatives.

The second step after we have assigned these scores, we assigned basically low or medium or high scores for all of these topics except the maturity of technology, which really looked at emerging

technology, maturing, mature and declining, the stage in technology lifecycle of the technology used. The second step was to look at our scores, and identify any specifications that provide a capability for which we rated the business need as low. I would also point out that the ratings, because I have been asked this as well, the initial scores were assigned by a team that Avinash Shanbhag has led for the ONC and he reached out to the NWHIN oversight team as well as to the NIST and to others to get input into the initial scores and those scores were reviewed by the power team at that point. So it is not just input into the scores, it is far more than just those who are on this team.

The third step was to identify the specifications that were in early or moderate stages of development and the technologies they used were in declining stage of their life cycle. In other words, if the technology is already declining and the spec is not even fully developed, maybe the specifications need to be given further thoughts.

The fourth step is to evaluate the remaining specifications on deployment and operational complexity, and the breadth of industry and options.

The fifth step is really to look at whether there were any alternatives. For this, Ken Tarkoff, one of our Power Team members led a sub-team that looked at specifications that are broadly adopted by healthcare, but are not exchange or direct specifications. We also looked at other industry standards that are in various stages of maturity. In considering all of these alternatives we used the same criteria that we used for the exchange and direct specs.

Finally, we stood back and looked at our work and asked ourselves whether there were any gaps that remain and should be addressed with maybe new specifications developed through the ONC. I have three slides here that have scores on them. You will see that they are in red and the red font are the changes we made at our last meeting based on inputs from the implementers from DOD and the VA. These are our scores at this time and if you have any comments on what you see here, please say something now. Any comments?

David McCallie, Cerner

I think on that patient discovery row that we discussed in our last call, that there are some alternatives that would be based on more of a p-cast type model for patient discovery and I wonder if we should reflect that into the alternatives category there. We discussed it, I just think we forgot to put it back in the

–

Dixie Baker, Chair, SAIC

I recall that we did talk about that. Yes, how p-cast uses the metadata model to discover where patient's data resides and then reaches out to retrieve the information.

David McCallie, Cerner

It is obviously not a spec per se, but it represents a different approach to managing the difficulty of a highly distributed and MPI problem, which is one of the things we heard about that was an issue in the pilot.

Dixie Baker, Chair, SAIC

Great, thank you. Any other comments? These first two sides are the exchange specifications, the third is the direct specification and here we just made three changes and they all came from our discussion last time. Then the third scores are for the direct specifications, and we made no changes and in fact, we did not discuss the direct specifications at that meeting. We really focused on the exchange specifications.

Chris Ross, MinuteClinic

When I looked at this last night, I'm wondering if under the XTR and XTM for direct messaging alternatives, I wonder if you could edit that to say direct to secure e-mail inbox. I think it is important to say secure as opposed to open email.

Dixie Baker, Chair, SAIC

That alternative, and Chris knows this because he was on the team during the evaluation of the direct protocol, the idea of having a secure e-mail inbox that direct participants could send e-mails to even if the entity was using a more change-based model.

David McCallie, Cerner

Another comment, and maybe I am beating a drum here that you're probably tired of hearing, but despite the fact that there is a lot of ground covered by the columns in these spreadsheets, I think some of the things that we heard in our session last week from some of the implementers was there is another axis, and I don't know where we'll capture that, but it's fit the purpose or something. Some of these specifications may be mature, but not to work as intended in terms of clinician expectations or user workflow. I don't know how we register that, but you can obviously have a very mature specification in a well understood technology that still does not work well in the context.

Wes Rishel, Gartner, Inc.

I should have asked this question 5 sessions ago, but how could we have a mature spec that does not fit the purpose? Can expect mature without ever getting off the shelf?

David McCallie, Cerner

Yes, it can, it can be worked on over years. You have been part of several processes that did that. Just because something has been through many iterations doesn't mean that it is fit for purpose. More important, it does not mean that it's fit for every purpose, it may work well in one setting but they do not another setting, that may be the issue here.

Wes Rishel, Gartner, Inc.

I just didn't understand our definition of maturity, there are two issues here. One is fit for the original purpose but not for our purpose – that is a clear issue that we need to recognize. Having been iterated on many times, but never been used in a large-scale production, would not strike me as a mature specification. I don't believe that standards evolve separately from their usage.

Dixie Baker, Chair, SAIC

You did bring that up at several meetings ago, that is one of the reasons why we have two criteria there, one for the maturity of the document itself, and the other for industry adoption.

Wes Rishel, Gartner, Inc.

Okay, thanks. I apologize for having forgotten.

Chris Ross, MinuteClinic

I want to support what both you and David are saying. I think the issue here is, we have a number of rows where we have maturity of underlying technology and maturity of spec mature to high and industry adoption being low. The question of course is, does that mean that a few people have worked really hard on it, and they have optimized it for their purpose? That seems to be the case. Why is it that the industry adoption remains low? That gets to David's point about goodness for fit, I would make a friendly amendment to be goodness for general availability or broad fit.

Dixie Baker, Chair, SAIC

I think you may have missed our meeting when we put in all those lows. The reason why all of them are industry adoption is low, is because all of them have not been deployed beyond the pilot. I think that David's comment is a really valuable one, but I don't think we want to add another row or another column. I think it is important however, to capture what he said, that we did hear things last week that are not reflected in these scores, but that we do need to reflect, in my opinion, in our conclusion.

Chris Ross, MinuteClinic

Dixie, I totally agree. That is where I was going. I was at a doctor's appointment last meeting and very sorry to miss the meeting. From some of the really thoughtful email correspondence that have gone on the last couple of days, that conclusion is important that there is a real open question about the fact that if one or two entities can do it, does that mean a hundred can do it? If a hundred have done it, does that mean a thousand can do it? That has been a persistent problem in healthcare IT for a while.

Dixie Baker, Chair, SAIC

Right and we absolutely need to capture that in our conclusions.

Wes Rishel, Gartner, Inc.

I am also concerned about another axis that may not be a column on the chart, but is nonetheless important, which I have been calling administrative maturity or administrative complexity. Most standards imply that there is an operator of a service available at scale and as we have found in area security in particular and in other discussions on provider directory, that is you can't make that assumption or at least you should consider rate standards versus whether they require that or not. These are not inexpensive things, they are not chartered programs for the government, we can have a perfectly good set of standards that work well in corporate settings where the corporation can make a business decision to fund the central service, but to choose that same standard in an open setting or a public setting, implies that we know how that service is going to be funded.

Dixie Baker, Chair, SAIC

Let me read you, I am sorry I did not put these in the slides, but let me read to you the definition of deployment and operational complexity that the ONC used, and we used for that topic, deployment and operational complexity rated low, moderate, high. That is a subjective assessment that considers both implementation and maintenance throughout ongoing operations. The three bullets are, one can be handled with ease by IT support, which is low, that is the definition that they gave to low. For moderate, the defined need as modest administrative support for deployment and maintenance over time, and high, need for a substantial ongoing IT investment to support the service. I think that's exactly what you are –

Wes Rishel, Gartner, Inc.

I always had read that before as the cost to the client for operating the technology that uses the service. I guess we could add a note in our report that that we also considered the cost to health care overall in organizing – just organizing a service.

Dixie Baker, Chair, SAIC

I know what you mean, like at the macro level.

Wes Rishel, Gartner, Inc.

The services side, yes. In other words, we could be talking about a widely federated service that everybody offers on their own, or we could talk about something that has statewide servers, or something

where the government lets a contract and pays for the operation of the servers, but each of those options carries time delay and ongoing operational costs issues, particularly when there is government processes at the state or federal level involved in setting up and operating the services.

Dixie Baker, Chair, SAIC

And over a search that overarches multiple entities, is what you're talking about.

Wes Rishel, Gartner, Inc.

Correct, it all boils down to the degree of federation. If everybody can offer their own service, sort of like the p-cast view of patient discovery, then it is easier than if all 50 states have to mount 50 or more patient locator services, which is different than the federal government operating a patient locator service, which we know there will not for policy reasons. But over and above the technical complexity associated with those specifications, there is a project complexity associated with actually making them work at the national scale.

Dixie Baker, Chair, SAIC

Obviously, what we are looking at now is an assessment of the individual specifications. However, in our conclusions, we have made some observations that are overarching like that. I don't believe we have captured this in our conclusions now and I think we should add this.

Wes Rishel, Gartner, Inc.

I would suggest that logically, fits under deployment and operational complexity. It is just a different take on the definite – I guess that's part of our charter.

Dixie Baker, Chair, SAIC

We have captured that in the scores we have assigned in that category?

Wes Rishel, Gartner, Inc.

Are you telling me that or asking that?

Dixie Baker, Chair, SAIC

I am asking you that. I have gone back to the first of the three.

David McCallie, Cerner

Based on re-hearing the definitions, I'm wondering if we have captured it adequately. For example, on our last call two weeks ago, considerable concern about the deployment complexity of the stack because of the number of layers and the expertise required it was difficult to even find developers understood the layers and much less could debug them. Then we heard lots of operational issues around things like document queries that were only able to fetch a five-year history which turned out to generate a gigabyte this message which caused a 20 minute delay or timeout or refusal to connect, lack of SLAs which I would consider these to be deployment issues.

Doug Fridsma, HHS/ONC

I think one of the things that will be important as well when I think about deployment and operational complexity, is to make sure that we make a separation between the specifications, which do not include a service level agreement, and the technology or the software that have been developed that may or may not have been built in a way to provide sort of that streamlined or service level agreement, or the kind of response time that we might expect. I think it is important to try to separate some of that out, because our goal here is not necessarily to advocate for a particular piece of software, but instead to make sure that

we have the specifications and allow implementations to be able to address those things. The other thing to also realize is that there is sort of this architectural component, and perhaps we can capture that in the deployment and operational complexity piece but there are pieces of any stack, whether it is REST, LDAP, SOAP or SMPP, or any of those things, some of which are very complicated and some of which are simpler and easier to adopt. The one thing that I really think is tremendous about this group and their focus here has been the ability to tease apart what seems like a monolithic stack into smaller chunks and being able to address maturity, technology, operational deployment and adoption, along those components. That has been a tremendous part of the value of this particular team.

David McCallie, Cerner

I think that is a good perspective. The difference between a specification or standard per se, then a profile, and implementation of that profile, we were asked to evaluate profiles and they are highly constrained profiles with respect to the general standards on which they are layered, but even within those high constraints, we heard ample concern that it is not adequate as constrained in those profiles for high scaled deployment. We had many points of where that came up from the developers who have actually used the profile. I am not convinced that merely re-implementing the current profiles will solve those problems. We did not hear problems that were implementation issues, per se.

Doug Fridsma, HHS/ONC

Service-level agreements, that was the part that I was talking about.

David McCallie, Cerner

A service-level agreement where the profile itself does not allow for proper constraining of a query, such that the only response is 1 GB because all of the images were dumped into it based on the with the query is formed, that is not going to be solved by merely dropping an SLA on it. The SLA will address some of the problems, but they are not magic. They constrain the developers to do things in a specific way to meet the SLA and the profiles as constrained don't appear to be SLAable.

Wes Rishel, Gartner, Inc.

I think if you offer me a service-level agreement for my contract with the nuclear generator and all I have is a wheelbarrow, I am probably just not going to engage in the activity. While I don't think the extreme that we are talking about are comparable, in orders of magnitude, I think the issue is that a specification, particularly one that has not been widely used for the current purpose, has the potential of being unSLAable, as David has just added a new adjective to our language. The other concern is that some of the individual specifications, for example, I am looking at NwHIN Web Services Registry specification, imply a scale of either federated use of LDAP, in this case, or contracts for regionalized services that reduce the Federation by a couple of orders of magnitude, but are still federated. Or, the development of a single entity service, operated by a business, presumably, that eliminates federation. I don't know that we can argue that anything that involves a use of LDAP in a way that it has not been widely used across enterprises before is moderate complexity.

Dixie Baker, Chair, SAIC

I would point out that for that particular example, the patient discovery; we did rate it high –

Wes Rishel, Gartner, Inc.

I am looking at the NwHIN Web Services Registry specifications.

Dixie Baker, Chair, SAIC

Oh, I thought you were looking at patients. We have 12 things here. Look at this column, and to tell me that is one of them where you think it should be high instead of moderate?

Wes Rishel, Gartner, Inc.

Yes.

Dixie Baker, Chair, SAIC

Okay, we will do that. Are there others?

Doug Fridsma, HHS/ONC

To follow up on David's comment, if we have been able to capture that and separate those things, that is great, that is really what we want to achieve. There has been tremendous pushback around direct for example, saying that we have limitations in the attachment size. The specifications do not create a limitation to what that attachment size is. But for practical implementation purposes, many institutions for their SMPP servers restrict the size of attachments or have other ways of doing that. I want to make sure that we create a differentiation that says, this spec does not actually limit the size of what an attachment may be. Implementations might, for practical purposes, making sure that we differentiate between those things gives people options to have, say, an implementation of SMPP specific for direct that has no limitations while other mail servers can do other kinds of things. So making sure that we have those kind of differentiations, I think that will be helpful across direct, exchange, and the others. It sounds to me you have incorporated that into your thinking around that so there is consistency across the way in which the various specifications have been evaluated.

Wes Rishel, Gartner, Inc.

I am a little leery of the size issue, because of what you're saying. I would say however, that in terms of maturity, every use of the mail the users are a well of the limit on the size and if only by long use and they have solutions. They try to avoid it and if they can't avoid it, they break things up into multiple packages. If they can't do that they use another server. I don't think what we have heard in the last meeting was that we have reached that level of acceptability limitation. We don't have an SLA, because we don't think we know how to meet it because of this problem which seems to have or require some change in the specification to be more specific in what you're asking for is more my interpretation of what we heard.

David McCallie, Cerner

I think that is a good point about message size, but that is an apple and oranges issue here. The issues that we heard about, with respect to query for documents and then retrieve documents, was the lack of ability to be precise about what you wanted, force the responding system to send everything, and the protocol as implemented, perhaps as constrained by the profile, I don't have that in front of me, but as implemented, did not offer a solution for the problem. You had no fallback. You had to fetch five years worth to get what you thought might be there. Instead of being able to say give me the recent EKG or the recent chest x-ray.

Doug Fridsma, HHS/ONC

The thing is that is going to be very important information. This is a great way of kind of looking at these specifications and really holding them up to the light and making sure that if there are problems or architectural assumptions or other things that are important, when I think about transport and those kinds of transports and standards and packages being assembled into profiles, but I recognize we have asked you to look at some of these profiles. If I sent a query as an attachment on a direct transport, then I underspecified that query, direct would have the same problem that the web services transport might have.

David McCallie, Cerner

Doug, no one is suggesting that we send queries over direct. That is irrelevant. Why would you do that? That is not the alternative.

Wes Rishel, Gartner, Inc.

Let me suggest that we have had discussions that 2 pushes equals a pull, but in that discussion there is an assumption of a decision being made on what to send that's outside to the direct specification of the direct. It is certainly not – we have never discussed – well maybe we have.

Doug Fridsma, HHS/ONC

There has been discussions about 2 pushes equals a pull, and maybe that is out of scope and I apologize, but that is why I was trying to tease apart query for documents and patient discovery, and kind of the whole stack to try to figure out if the issue is in the profile around patient discovery independent of the transport mechanism, or whether this is something that is part of the profile of patient discovery independent of the transport mechanism or whether this is something that is part of the profile about patient discovery but not necessarily something about the transport. In my head, I go through those thought experiments because suppose we did this in REST, is that going to solve the problem?

Dixie Baker, Chair, SAIC

I don't think we are talking at all about the first specification here, which is the transport specification which is a messaging platform. We are talking about the patient discovery profile.

Doug Fridsma, HHS/ONC

Okay, you guys have done a tremendous amount of good work in teasing those pieces apart. I just want to make sure I get the right information in terms of the analysis you have done about teasing things apart.

Dixie Baker, Chair, SAIC

We are not teasing them apart, they are separate documents with separate specifications entirely.

David McCallie, Cerner

I understand better where Doug was coming from, and I think absolutely we're talking about the higher layer of functionality, not the transport. The transport may or may not have issues but that is not what we were talking about.

Doug Fridsma, HHS/ONC

I just wanted to make sure. Many of these comments are things that we have been struggling with, and having people be able to help us tease those pieces apart we've got these stacks that include lots of layers. Some of the layers are pretty good, but in the aggregate, they may not be fit for purpose, or easy to implement or may result in unintended consequences of a gigabyte coming back as the response from the query. I know David, that you have worked in some of the work as an alternative with p-cast around patient discovery services, again, that would be one of those things that I would think we have to make sure, as you have rightly raised, getting clarity around what you ask for is going to be an important part of the profile, just so that we eliminate the extra burden that it might place on whatever transport mechanism or whatever way you would receive 1 GB back, whether that is the patient discovery or the query for document specifications or whether that is a P-Caspian approach. Teasing apart where the fundamental issue lies helps us make better specifications that stipulate this is the way that we expect it to function so that we can get to those of service-level agreements and get some predictability about how the specifications might get implemented.

Dixie Baker, Chair, SAIC

When I heard last week I heard two problems. One is the inability to discreetly ask for a small document or small number of documents that are explicitly what they wanted, but also, this is where the pre-Caspian model, if you will, comes in, in some cases they did not want to document, they wanted a data element and were not able to do that.

Doug Fridsma, HHS/ONC

That is tremendously helpful.

Wes Rishel, Gartner, Inc.

Of course, nobody claims that anything in the alternative column is mature either. Earlier on, you asked me to look at the deployment and operational complexity column from the point of what I've been calling administrative complexity and the others that were examined. I have looked at them and I have a couple to suggest when it is an appropriate point in the discussion.

Dixie Baker, Chair, SAIC

Suggest them now.

Wes Rishel, Gartner, Inc.

Okay, so NwHIN access consent policies specification involves, as I understand it and open to be corrected on this, involves the industry accepting a common model for roles of users in order to operate the rules for access consent. I don't believe that that is a moderate effort; I believe that is a large effort. We have the standards. It's a case of the standards being available and standards having been proven to be adoptable and everything that I have seen around this says that if we had a standard that was extremely simple such as the roles of clinician or non-clinician and that is it, then I would be ready to accept moderate. But what I understand is, that we have the ability and the standard to distinguish between an internist and a pediatric internist and various levels of nursing degrees and so forth, and if that is true, I would not want to, as Steve said, it is a small world and I would not want to paint it. Getting systems to take their particular ontology of roles and map them to a complex ontology of roles is very difficult.

Dixie Baker, Chair, SAIC

I have that, good.

Wes Rishel, Gartner, Inc.

The other one is, the NwHIN Administrative Distribution Specification, I understand and again I could be well out of date, but I understand that to be a publish and subscribe model as opposed to a push model. Both models have the effect of pushing an item at the time of an event happening or data becoming ready, but the publish and subscribe model implies a dynamic history of transactions that links the source up and the receiver of the newly push transaction up with the patient and in some model for which information they are interested in and so forth were as the pure push model involves an external determination of who the recipient as, which is closer to how things are done now in healthcare. So my sense is that if in fact in the NwHIN Administrative Distribution Specification is based on a publish and subscribe and it is about sending results to people, then I can't consider that to be low.

Dixie Baker, Chair, SAIC

So he would make it high?

Wes Rishel, Gartner, Inc.

Here is the issue. I don't know whether to say moderate or high. There may be an implementation scheme that makes it moderate. My initial take is that it is high, but I can imagine implementation schemes that could bring it down to moderate. So I guess I would say –

Dixie Baker, Chair, SAIC

We could make this moderate to high.

Wes Rishel, Gartner, Inc.

I would say so. I had not thought about it enough to be sure. I really do want someone else to confirm that I'm in the right ballpark in describing this administrative –

Dixie Baker, Chair, SAIC

Based on T-63, we can review it afterwards.

Avinash Shanbhag

Can I make a comment on those two administrative distribution and document submissions data that we received?

Dixie Baker, Chair, SAIC

Sure.

Avinash Shanbhag

The specifications are currently within the exchange of being implemented by a CMS, and we had reached out specifically to them to get information on their understanding based on that experience, and work on that. So the results that you saw on the slide about complexity really reflect that interpretation based on that experience.

Wes Rishel, Gartner, Inc.

Is this referring to **ebMS** then?

Avinash Shanbhag

I am not so sure about administrative distribution. I can certainly check with CMS and get additional information.

Wes Rishel, Gartner, Inc.

If that is true, then my comments are aiming at the wrong row.

Avinash Shanbhag

I have to kind of circle back with CMS to get additional information.

Dixie Baker, Chair, SAIC

Are there other comments? Okay. The changes that I will make to the scores are Web Services Registry goes from moderate to high on complexity, adding to the p-cast model as an alternative to patient discovery, and access consent complexity is moderate to high.

Wes Rishel, Gartner, Inc.

No, that was high. It was the other one. It was administrative distribution specifications.

Dixie Baker, Chair, SAIC

You said access consent policies you wanted high.

Wes Rishel, Gartner, Inc.

Right, you're going from moderate to high as opposed to going to moderate from high.

Dixie Baker, Chair, SAIC

Correct, then the administrative distribution, for now, I have changed it from low to moderate/high, but Avinash is going to get us –

Wes Rishel, Gartner, Inc.

I suspect that now that I know they reached out to that particular application, I think you really may just be better put low in a question mark there and finalize it if we get information from –

Dixie Baker, Chair, SAIC

We won't make any change, but Avinash I would like you to still follow up on that.

Avinash Shanbhag

Yes, I will do that.

Dixie Baker, Chair, SAIC

Then we will re-review.

David McCallie, Cerner

On the query for documents and retrieve documents, are we still comfortable leaving that at moderate based on what we heard? By that I mean rolling up some of these issues that we heard about? The inability to find what you are looking for, long delays –

Dixie Baker, Chair, SAIC

I think that was in the patient discovery though.

David McCallie, Cerner

The patient discovery was one place but the request for five years of documents generating a huge message that took a long time to come back which led to clinicians not using it or the requirement of everything being pre-fetched before the patient encounter, which is certainly not a scalable approach in most clinics. Something is an issue there that we should capture somewhere and that was my fit to purpose question. If we are rolling fit to purpose into deployment and operational complexity, I'm wondering if those should be moderate/high. They are certainly not simple. It might be possible to use them in a simple way, but that is not what the pilot users told us.

Doug Fridsma, HHS/ONC

In the operational complexity, is that also where workflow integration issues would fall?

David McCallie, Cerner

That's my fit to purpose. Workflow is probably a better –

Dixie Baker, Chair, SAIC

I'm looking at my notes from last meeting and I specifically asked whether discovery was just a problem, or whether the query was a problem or whether it was both. And Sanjay replied yes, the discovery is the one that has a performance problem.

David McCallie, Cerner

We heard about the document query when the one generating the messages that were too big to be sent. If you are generating a message that was several hundred MB because you are forced to ask for five years to make it work, you're going to have serious performance issues.

Dixie Baker, Chair, SAIC

We will make that one moderate/high.

David McCallie, Cerner

Maybe the profile needs to be more carefully constrained. You are not going to get a poor implementation to account for those problems, you need to constrain the profile more or change the underlying spec.

Dixie Baker, Chair, SAIC

All right. Those are the changes we will make. Moving on, we did not make any changes to our scores on need. We did not make any changes to the business need column and so these 2 specifications, the business need for functionality specified in those specs were judged low. So here I have depicted these specs based on the scores that we had before and of course they will change based on changes that we made today. They will not change at all because we did not change spec maturity or technology maturity on any of them. But this one will. Some of them that we rated low complexity, administrative distribution for example, we decided not to change that one. The query will change to high, patient discovery is already high, so I will make the changes. This is a depiction of the two factors on the same graph.

Moving onto the draft conclusions, I received input from some of you, you'll notice from the first one, Ken Tarkoff suggested that we check on the second one to say that once the specs have been deployed – well we will get to that in a minute. That's the only change I have made to what I sent out to you guys up for review to begin with. Let's start with conclusion number one, I wanted to make sure that these are conclusions and recommendations that we want to make, and that they are stated completely so that we get our message across. Please don't hesitate to make your wordsmithing or whatever recommendations, because we want to be sure we communicate clearly to the ONC. The first one that we made early on is that architecture was important so the idea of splitting these building blocks have to be able to be integrated into a complete solution, and scalable to the national level.

Chris Ross, MinuteClinic

I agree completely with that recommendation and conclusion and I am glad that it is number one. My comment is around nomenclature, when we say NwHIN building blocks, I think we need a glossary definition of what that means. It would be easy for people to think that NwHIN means NwHIN exchange perhaps.

Dixie Baker, Chair, SAIC

We can just delete that because clearly, the exchange documents have NwHIN at the beginning. So I can remove just making building blocks must integrate into a complete solution.

Chris Ross, MinuteClinic

Agreed with that, in addition, it would be helpful if, at some point in the presentation we put in place some context and recommendation and I have always been an advocate that we ought to have one name for all the standards that are used for transport and exchange, whatever the title is going to be even if it is something generic like standards for transport or an exchange. Direct, connect, NwHIN exchange, and all of the rest could be seen as potential channels under the overall title.

Dixie Baker, Chair, SAIC

These documents are not called NwHIN, the exchange documents are called and NHIN. I know that ONC and just about everybody, we want to get to move to the notion of referring to all of these, both the direct and the changed specifications as nationwide health information network building blocks.

Chris Ross, MinuteClinic

I agree, but want to tell you as I am out and about in the industry there is confusion around what NwHIN means versus NHIN exchange. I don't think anyone has yet picked up the new definitions and sense we are trying to help drive that, I think we should be overly clear wherever possible. I am fine with taking NwHIN out of conclusion one, I think at some point in the document, we ought to be clear that NwHIN is something different than NHIN exchange, and it is intended to be a superset.

Dixie Baker, Chair, SAIC

We'll add a glossary and I do want for us to help lead the industry into using the term NwHIN but after the end wHIN I will put exchange and direct.

Chris Ross, MinuteClinic

And alternative specs. NwHIN could include the alternatives listed in the grid above.

Doug Fridsma, HHS/ONC

To be explicit, I really like the clarity, what we're really talking about is the standards, the services and the policies. All of those building blocks have to integrate into a complete solution that is scaled on a national scale. Whether you call that NwHIN or you are explicit about the standards, services, and policies, I think that is what you are trying to articulate.

Wes Rishel, Gartner, Inc.

I could not agree more. However ONC wants to call that you and I are saying exactly the same thing even if we are not right but at least I'm happy we're saying the same thing. I would love to see ONC do whatever it can to codify that vocabulary and structure.

John Feikema, Ability Network

I like the way Doug put it as well, I thought that was a nice, succinct way of putting a total spoke around it.

Wes Rishel, Gartner, Inc.

Lest we get close to agreeing on something, I would like to ask about a question. One way of looking at NwHIN is that it is direct plus exchange. I wonder if we don't want some sort of definition that includes direct and exchange, but is not meant to imply that the whole NwHIN effort is nothing more than a synthesis of direct and exchange and would suggest the standards, policies, and agreements, or whatever the right terminology is, for exchange of health information on the national basis to exchange with all the information on a national basis.

Doug Fridsma, HHS/ONC

I think the issue is what we have done is defined essentially a nationwide health information network to be the standards, services, and policies, and enable us to use the internet to securely exchange information. If the label, which right now is NwHIN, if the label is creating confusion, then being explicit to say the standards, services, and policies, rather than putting a label on there, I think we will get the clarity of thought out there so people are explicit. I think it addresses with your concern, that the nationwide health information network is not exchange plus direct, but in fact, those are part of a larger set. Direct and exchange are about transport, but securely exchanging information includes policy, and security

standards, and requires us to have packages and vocabularies that also help us move this information around securely. So to me, that standards of services and policies is something that we've been trying to use as a mantra about what defines the nationwide health information network.

Wes Rishel, Gartner, Inc.

Our job is to use exactly verbatim the definition, and make it clear that that is inclusive of these things, and that is what we have been examining as part of the overall effort.

David McCallie, Cerner

Where in standards and services and policies does the notion of architecture fit? Bullet point number one here is even if you have excellent standards, services, and policies, if you do not deploy them correctly in an architecture or a system, you do not scale and you don't get used.

Dixie Baker, Chair, SAIC

It says must integrate into a complete solution scalable to the national level.

David McCallie, Cerner

So if the definition of standard services, policies, and architecture, another words the fundamental definition, it says that we are trying to capture in bullet point number one something that is missing from the current definition.

Doug Fridsma, HHS/ONC

What I am taking from one is that those of standards, services, and policies, those building blocks, must integrate into a complete solution. I'm in complete agreement that what the conclusion of this group is that the building blocks must come together in a way that makes sense. That's what the architecture is. I think we are in violent agreement, but I don't think that we should redefine what has been defined in the past. Except in so far to say, maybe there is some of the things we need to consider, and one of them is having individual building blocks but not having them hold together into an architecture is something that you guys think is important as we think this problem through.

Chris Ross, MinuteClinic

To support you, I think we may want to think about changing the conclusion to say something like, a complete solution is important which encompasses policy standards, architecture, and all the rest.

Wes Rishel, Gartner, Inc.

With both solution and architecture, I found that you have to jump over the edge onto a slippery slope and there is nothing to hang on that keeps you from falling into the valley of excessive detail. I often intended to use the term architecture with an M, because what we really are wanting there to be architectures and solutions that use the standard not to dictate an architecture and a solution, and yet often we find that our interactions between assumptions about architecture and the content of the standards. So I would suggest some sort of adaptation to Chris's proposed wording that got away from the notion that we are expecting there to be a single architecture or a single solution for the country.

Dixie Baker, Chair, SAIC

I think we're getting away from the point that this is based on. Very early on, we were looking at the task in front of us as coming up with a set of selectable building blocks that could be cut and pasted together to come up with a solution for changing information. I believe David was the first one that said architecture is important. I think that's the point we're trying to make here. I think we can wordsmith it to

the point that we lose that critical point. The point is, architecture is important, you can have a bunch of building blocks that you cut and paste together in random ways.

Doug Fridsma, HHS/ONC

Regardless of how you wordsmith it, that is the teachable moment for me from the work that you've done.

Wes Rishel, Gartner, Inc.

Okay. You need to move the meeting on, and I'm concerned that if we say that if we include architecture in the definition of NwHIN that we will face enormous and justified resistance.

Dixie Baker, Chair, SAIC

We are not redefining NwHIN, we are using NwHIN definitions. All I am saying is in the conclusion is architecture is important. I think what it should say is, architecture is important, the NwHIN standards, services and policies must integrate into completion scalable to the national level.

Wes Rishel, Gartner, Inc.

As long as you don't imply that a single architecture must be **?**, then I am fine with it.

Dixie Baker, Chair, SAIC

Right, we cannot.

David McCallie, Cerner

That sounds good. I'm again going to be a little devil's advocate on this point, are we comfortable that we captured the notion that we were asked to examine a specific set of building blocks, but that does not mean that that is a complete set necessary for said architecture? Is our notion of suggesting possible alternatives adequate to capture that? For example, if the building blocks are stone and brick, you can build certain structures but you're not going to build a skyscraper, you're going to need some steel. So are we capturing what is missing?

Doug Fridsma, HHS/ONC

I think this provides a sufficient guidance that is not restricted to particular architecture. It does not say that there are specific building blocks, and you have only looked at a subset of this. To me, the examination of that says, certain building blocks go logically together to solve certain types of problems, but that there may be other building blocks that may not make sense to put together, or they do not fit in an integrated or scalable way, so one could argue that there may be some solutions that are good for small deployment, others that are good for across the country deployments. I am hearing what the group is saying, and it is really helpful, but I think to Dixie's point, we should not over think it. The first sentence there is the part that I think is most critical. Without specifying an architecture or a singular one, to me architecture is how those pieces are put together to solve a particular solution.

Dixie Baker, Chair, SAIC

I do hear Wes and David's point that we do not want to imply that there is one solution and one only. Nor do we want to imply that what we are recommending is everything that is needed. I will think about those 2 points, and if any of you have suggestions on how we can word this to get the two points across, please e-mail them to me. Just to let us move on to number two.

Number two, is that neither the exchange specifications nor the direct specifications have been adopted beyond the pilots. This is our low rating. 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 inherent impacts on workflow need to be better understood before these specifications are codified into regulations. Then I added, based on some comments from Ken, once these specifications have been deployed at a much larger scale across a broader spectrum of healthcare users, they should be reassessed against the criteria used in this exercise to determine suitability of the national standard. Comments? Going once?

Doug Fridsma, HHS/ONC

I just want to make sure; I'm going to ask the group a question that David Blumenthal has asked me in the past and it has to do with when we are talking #2 it has to do with transport. It does not talk about the other standards that are out there and the like.

David McCallie, Cerner

No, I think this is the whole suite of standards, isn't it?

Dixie Baker, Chair, SAIC

Yes, I do too.

Doug Fridsma, HHS/ONC

Okay, so the whole suite of standards.

David McCallie, Cerner

The issues that we heard about most dramatically were not of the transport issues, other than there was a complexity argument. There were really issues at the patient discovery and the behaviors associated with the way query for documents and retrieve documents are being used.

Doug Fridsma, HHS/ONC

Let me just reframe it. Then I misinterpreted exchange and direct specifications as transport and you are thinking more broadly about that. I want to focus the question a little bit on transport. As you know, in the regulations, one of the things that David asked me early on, and I'm not sure we have given him a good answer just yet and I just want to make sure that I just understand. Do we need ultimately, to have that full stack including the transport specifications or maybe some of the profiles around that higher order, if you will, to achieve our goal of reusable and interoperable information exchange? Or can we get there without specifying any of that?

David McCallie, Cerner

Could you ask that again please?

Doug Fridsma, HHS/ONC

Without sort of complicating it without thinking through all the different kinds of specifications because you can go through them individually and asked the same question. The question would be, if we take the exchange transport specifications and the direct transport specifications, can we achieve our goal without specifying anything in the transport layer? Essentially allow the market to decide how best to do that. Or two advanced interoperability and information exchange, do we at some point have to start narrowing the kinds of ways that people would exchange information? Whether we do it now or in the future, maybe it is premature. I want to get a directional idea of what people are thinking.

Dixie Baker, Chair, SAIC

Are you asking us whether we need to include the transport layer or whether we need to include the other layers? I hear you saying both.

Doug Fridsma, HHS/ONC

I just want to focus on transport because I think you can go and ask the same question.

Dixie Baker, Chair, SAIC

How do you define transport? I think you think of transport much broader than I think about transport.

Doug Fridsma, HHS/ONC

I was thinking of transport just in terms of an SMTP with a secure line attachment or web services.

David McCallie, Cerner

I would say that those are the tail on the dog, one could do silly things or profound things with either of those approaches and the issue is are we doing profound things or are we doing silly things?

Wes Rishel, Gartner, Inc.

I think the issue is will industry by some mechanism that is the sort of within the broaden view of economics, will some mechanism create interoperability if we just specify a narrow portion of the total problem? We look at an awful lot of interoperability that goes on around Google right now, every time we look at a Google mail message, the number of interactions that went on in the background to present those ads is fantastically complex system. There are probably other areas where you can point to industry got us to a level of standardization that might not have been possible through formal standards. Microsoft Word, with all of its defects as a document for exchange for collaboration and Excel, are examples of that. However, in my experience, that level of standardization occurs by the dominant vendor approach. Arguably X12 took off for manufacturing support when Wal-Mart said, here is how we interpret X12 if you want to do business with us. The big question that we have is is that possible that would happen? If it is possible, is it desirable policy? The problem we face in my opinion is we have never gotten very far in creating more complex standards and having them adopted. I am dismayed to find that next week at HL7 we will have the same discussions that ISPY had about the lab data specifications. But there still is no agreement on one specification versus three. So, I think that we have a real challenge on our hands in terms of saying, should we let economic dominance solve our problem, and therefore increase the dominance of the dominator, or do we have any alternative?

Chris Ross, MinuteClinic

I think Wesley is making some really important points and some broader points than I wanted to make. So I want to support it by saying one specific thing, which is Doug, when you asked the question, if you put together direct and NHIN exchange, is that sufficient and should we put it in regulation was a crude way of your question. I would say two things, one, I think the core of this workgroups recommendations so far is that those two together are probably not sufficient to cover all potential use cases. They might be, but we are not sure. Number two, the status of industry maturity says that what is the explicit recommendation number coming up is we should not put them in regulations because the market needs to do further innovation. I think that puts us on the harms of a dilemma. It feels to me as though one of the problems with meaningful use stage 1 is that it was silent on the issue of transport and to some degree, exchange. That is a problem. It needs to be addressed somehow in stage 2 and 3. I think we are discovering that the two specifications we were asked to look at most closely, exchange and direct, are neither sufficient nor ready for prime time and that the industry needs to move. I know we will get to Dixie's further recommendations which I think are extremely well worded that point that out. My answer would be first, let's not go down a slippery slope of assuming that direct and exchange are the only answers out there and second, if they are not ready for prime time, what you do in the regulatory environment to still require and encourage exchange?

Dixie Baker, Chair, SAIC

I don't think that is what Doug asked us. He wants to focus on transport, do we need the full stack? That is what he asked us. Do we need to specify the full stack or just the transport?

Doug Fridsma, HHS/ONC

I think Chris was maybe more aligned and maybe I did not articulate it well. I really like what the conclusions are here they're helpful to think through this. There are a lot of ways you could do this. You can say we can achieve our goals and don't have to create any specification around transport. I was focused on that, not the other things. The other thing you could do it and the other extreme would be to say, everything has to be direct or exchange, and that is how we will get to it. I also think when you think about the extremes, oftentimes the solution should be somewhere in the middle. It could be that if somebody is committed into their workflow or system that they are going to use an SMTP approach that maybe should consider looking at direct. If they are committed to a web services approach, maybe they should look at exchange. If they are committed to a REST approach, maybe we should think about what would be an emerging standard that would help support that? As opposed to having multiple transports around Web services or multiple transport around SMTP or around REST. There is nothing here that has been described that I think – this does provide some clarity and some good recommendations. I was asking the sidebar question, which was, if the industry is out there trying to make choices, if we tell them that we don't have any advice in terms of choices, which would suggest well if you're going to use SMTP maybe you can figure out another way with secure email to do that. Maybe that's a recommendation.

Wes Rishel, Gartner, Inc.

In the regulatory focus I think it is important that we keep in mind that there are two regulations, one is effective with standards for certification and one is meaningful use. Within some bounds, I think it is not preferable but acceptable to specify things for certification that are not necessarily fully cooked. My reasoning is that if everybody has code running in a production release that does direct or some function of exchange, then it is easier for the industry to call us around that than any form of security mail or any form of Web services, but we have not mandated that. If someone comes along and meets HIPAA requirements and is using this, if that develops in the industry, it is possible to go back and look at that or the later regulatory cycle and say well, we have to adopt another one. I think we are in a position to be able to attempt to create points of coalescence by requiring that people write the code and test the code to a limited extent that it takes to pass certification and get it into a production release. It is a lot harder to say well, if you are sending your lab results not by direct or not by exchange, you don't meet the meaningful use criterion. I think it is a good compromise between attempting to use the standard – a good standard creates competition above the level of a standard. A bad standard stifles competition and I think the split between certification and meaningful use offers the ability to take advantage of that difference.

John Feikema, Ability Network

I think this whole thread is probably as valuable as any we have had. The directional movement that we have seen in the markets since these specifications have started to coalesce I would argue more movement that we have seen in 10 years towards interoperability and toward exchange, so while they may not be sufficient, I would argue that they are necessary. I think having things like this that people can point to but not having them the exclusive way, really is an important step in the process, and I think we should continue to support that.

Dixie Baker, Chair, SAIC

I noticed that we have like seven minutes left and I do know that there are people in the public audience today that want to make comments. I think this is a very valuable conversation, but quite frankly Doug, we have not had because we did not know that this was something you were looking for. We need to have a

further conversation about our conclusions that we want to get across as well. So I will suggest that we have a Judy schedule another meeting for us, one more, just to finalize our conclusions and recommendations before we present them to the standards committee, and certainly we can continue this conversation online as well.

Doug Fridsma, HHS/ONC

Let me just say also, I want to thank the committee for their indulgence. To me, this has been tremendously valuable and kind of understanding the expertise that has been applied to looking at these specifications and the thoughtful work that has gone on. I just want to thank you and apologize for probably getting your schedule off a little bit. I know it has been tremendous helpful for me.

Dixie Baker, Chair, SAIC

This conversation is a very good conversation. So with that, Judy I think we should give the public an opportunity to make some statements.

Public Comment Received During the Meeting

Judy Sparrow – Office of the National Coordinator – Executive Director

Thank you, I will set up another call. Operator, could you please check the see if anyone wishes to make comments?

Operator

You do not have any comment at this time.

Dixie Baker, Chair, SAIC

Really? We must have scared everybody off.

Judy Sparrow – Office of the National Coordinator – Executive Director

With that, we will adjourn and I will set up another call to continue on the conclusions.

Dixie Baker, Chair, SAIC

Thank you, goodbye.