HIT Standards Committee
NwHIN Power Team
Transcript
April 17, 2014

Presentation

Operator
All lines are now bridged.

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Thank you. Good afternoon everyone, this is Michelle Consolazio with the Office of the National Coordinator. This is a meeting of the Health IT Standards Committee NwHIN Power Team. This is a public call and there will be time for public comment at the end of the call. As a reminder, please state your name before speaking as this meeting is being transcribed and recorded. I'll now take roll. Dixie Baker?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
I'm here.

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Dixie. Dave McCallie?

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

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Dave. Arien Malec? Cris Ross?

Cris Ross, MBA – Chief Information Officer – Mayo Clinic
Here.

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Cris. Jitin Asnaani?

Jitin Asnaani, MBA – Director of Technology Standards and Policy – athenahealth
Here.

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Josh Mandel? Keith Figlioli? Keith Boone? Kevin Brady? Ollie Gray? Wes Rishel? And do we have Debbie Bucci from ONC?

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

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
And Kory Mertz from ONC?

Kory Mertz – Challenge Grant Director – Office of the National Coordinator for Health Information Technology
Here.

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Are there any other ONC staff members on the line?

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
This is Matthew Rahn with...

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Matthew. And with that, we'll turn it back to you, Dixie.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
And I also have Nagesh Bashyam "Dragon," who's a contractor to ONC.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
– Bashyam, okay. Glad you guys could join us. So we just have David, myself, Jitin and Cris of the committee members – or the workgroup members, right?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
That's what I got.

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

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
That's what I heard.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
So hopefully we'll – we may get others to dial in a little later. So the – I think the first thing on the agenda is to review the agenda and thank you guys for calling in. I know we all have a lot going on right now, so we really appreciate your dialing in. The first thing we're going to do is to review the tasking that has been assigned to the NwHIN Power Team for this – for the calendar year 2014 and then we'll get started on the first of those tasks, which is to make recommendations around provider directories, And that will pretty much be our agenda for the day. So, next slide, please.

Is the – yeah, the overview of the current tasking. We've been assigned three tasks; one is provider directories, to make recommendations around provider directories. Now, Debbie I asked you a question about when these were due – when ONC expects our responses, do you know?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
Yes, we talked with Michelle, July 16.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
All three of them?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
All three of them by July 16, right Michelle?

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Yes, or Dixie if you're able to do provider directory first and you want to report out at the May meeting, for example, we could do it that way as well. Whatever makes the most sense?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Okay, okay, but they're not spaced out; we should just take one of them at a time and work through them.

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

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Okay, the second is query for a patient record and the third is provider data migration and patient portability, in other words, how to move the data and how to move, as the patient is – transfers from location to location. Next slide, please.

We've addressed, I'm sure you guys know this, we've addre – between this workgroup and the Privacy and Security Workgroup, we've addressed provider directories a number of times and I'll review what we've said before. This is what drives this request are some recommendations from the Policy Committee, and these were made, let me see, I actually looked this up.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
In the IE working group, correct?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
I don't know, they have so many working groups over there I get them confused. So I'm not –

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

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
– I don't have the date –

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
What is the question, I'm sorry Dixie? Yeah, they came over from the Information Exchange Working Group.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Okay, Information Exchange Working Group, okay, and are they recent recommendations?

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Umm, they were sent over, I'm quickly looking, Kory if you remember, in November.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Okay. Okay –

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
They were finalized.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
– of the Policy Committee, and what they said was that the EHR system should have the ability to query an external provider directory to discover addresses and credential information about providers. And presumably, that's provider individuals and provider organizations. And then the HER system should be able to expose a provider directory containing this information. So, next slide, please.

David McCallie, Jr>, MD – Senior Vice President, Medical Informatics – Cerner Corporation
Dixie?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
This is David. Before we jump into the provider directory, just in the context of the broader mandate for the group. And in particular, maybe thinking about how to ensure that we have good representation from the full membership in future meetings are these questions that are coming to us with respect to a particular broader deliverable, like Meaningful Use Stage 3 or are they –

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

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

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
So this is Michelle. Sorry, these were the Information Exchange's Meaningful Use Stage 3 recommendations.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
So for 2017?

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

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Correct, Stage 3 recommendations.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And some of these questions are quite broad and our group has tended to focus on relatively technical things around transport and standards associated with interaction between systems. Are other workgroups also addressing these in parallel or are we the sole responder for some of these?

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
As of now, you are the sole responder for some of these, but if we need to do a combined effort, we can coordinate that.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Okay, I'm thinking in particular of that third one around data portability of a patient record. I mean that's a huge and complex issue.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah it's a clinical issue, too.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
It's – yeah; it may be that it's more appropriate for one of the other workgroups or even a joint, multi-workgroup response. I think provider directories is good for us, and the query the record one is probably good for us, but that portability one seems really broad. I don't know, so we can talk about that at some other point.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Why don't we – David, why don't you and I just discuss that and see what we want to do with it. I –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, we can do that. I appreciate it. That's – but thanks for the clarification, now we can go back to provider directories.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah. I kind of chuckled when you said, we can – we're experienced with that one, but we are. The – and then the, let's see, I'm switching between – so the scope is the – they're really asking us for standards. And they're asking us for the – a transaction kind of based solution query response, as well as the content that should be in the directory. I know that the policy working group also addressed that content question before, too. Build on Stage 1 and Stage 2 approaches, where possible, I guess this is the transports they're talking about, and allow the use of organized HIE or cross-entity provider directories, and remaining agnostic, which our previous recommendations have tried to do. We – they want to make it simple, which our previous recommendations have tried to do, and the – an external EHR system or another distinct en – in other words, it can be a – I think they're telling us to assume it's an external – query an external not query an internal directory. Next slide, please.

And here they have their requirements for the transactions that you have to present authenticating credentials and validate them, present the provider identifying organiz – information and secure transmit of the query message. Okay, so next slide. So then, the directory in turn has to validate the credentials and – in other words, each has to cross-authenticate each other, the provider and the querier, match the query with the provider and respond with unambiguous information. So, we've discussed that one before as well. Next slide.

Jitin Asnaani, MBA – Director of Technology Standards and Policy – athenahealth
Dixie, this is Jitin, is this an appropriate point to ask a question or should I –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, yeah, yeah, please feel free to.

Jitin Asnaani, MBA – Director of Technology Standards and Policy – athenahealth
On that last slide, just what struck me was that unambiguous response to a provider, a provider's information – a request for provider's information. I mean, at times of course more than one provider may meet – depending on what type of request is sent, if it's sort of very clear identity that's sent, they you should only receive one response or none at all, or fulfillment – non-fulfillment of the request. But if it is – if it can return different providers on the same request legitimately –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

Jitin Asnaani, MBA – Director of Technology Standards and Policy – athenahealth
– is that out of scope or is that just assume that it will not happen because of the credentials prevented up front where does that fit in?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
I think the credentials are just to mutually authenticate the two ends of a secure channel, which they didn't mention the channel, but that's basically mutual authentication of a TLS link, I think, that's all they're asking there. But, we've discussed that before that it's highly likely that on the first query you're going to get precisely what you're asking for, unless you know exactly where the provider is, in which case you probably know their provider information anyway. So I think that we should assume that there might be multiple interactions before you get the response to your – the single response.

Jitin Asnaani, MBA – Director of Technology Standards and Policy – athenahealth
Yup, okay, great, that is what I would have expected as well.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, yeah. I can't imagine –

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

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Dixie, this is David. Are you planning to go through all – are we going to get a presentation or are we going to –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

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

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, just – we're still – that's why I'm trying to go through these kind of quickly, because this is just what they rec – this is all still the recommendation.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
But I think there are a bunch of problems in this recommendation. I'm –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Okay, why don't we talk about it, because I – we're not going to – if there are problems with the recommendation, we should discuss it.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, I mean, it's – first off, the – I guess I'm looking at the slides independently – got it, number 1 of 5, go back to 1 of 5 if you would for the public display. Yeah, so, must address provider directory transactions, query and response – oh, okay, to enable directed and query exchange. So I understand what directed means, because you could get the address of the provider and direct a message to that provider. But what on earth does query mean?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
I think what they mean is broadcast.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
No, I think what they mean is XCA, they're talking about the targeted query, as opposed to targeted push. And I don't know what it would mean to look up the provider address for targeted query.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Targeted query is Direct – directed.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
That's targeted push. Targeted push is Direct, targeted query is not yet defined what that standard is, but the practical implementation in the real-world has been XCA, . Heatheway's e-Health Exchange and dir – I mean CommonWell and others. I'm just questioning – this is a really vaguely written scope when you start talking about query.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, I think they're talking about when you already know, you're just querying one particular directory or you're querying multiple directories, that's what I think. But, that's just how I interpret it. Julie or the team – ONC team, can you find out, get a clarification for us on that?

Kory Mertz – Challenge Grant Director – Office of the National Coordinator for Health Information Technology
So –

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
So, this is Michelle, sorry Kory, were you going to speak up?

Kory Mertz – Challenge Grant Director – Office of the National Coordinator for Health Information Technology
Yes.

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

W
Thank you Kory.

Kory Mertz – Challenge Grant Director – Office of the National Coordinator for Health Information Technology
Do you want me to speak up? So, this is Kory Mertz from ONC, I help staff the Information Exchange Workgroup of the Policy Committee. So I think the real goal here was they were trying to express that they wanted the ability to find electronic service information for more than just a directed use case, also thinking about query use cases where it makes sense. So I think that's what the aim here was, was to express that this shouldn't – they weren't looking for this just to be about one form of exchange, but taking into consideration other approaches that providers are going to take.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
So by service information, you mean what would have been in the UDDI service layer in –

Kory Mertz – Challenge Grant Director – Office of the National Coordinator for Health Information Technology
Not necessarily, I mean I think whatever that endpoint information's going to be that you need to be able to get to send the information or query the information.

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

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
But they don't say anything about query for services in any of these slides, they just say for a core provider.

Kory Mertz – Challenge Grant Director – Office of the National Coordinator for Health Information Technology
Right –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
That's what I have heard as well, Dixie, I mean, Kory's confirming what I've heard and I'm just saying that I think that is an incredibly ill-posed question.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yes, I totally agree. Yeah, I agree.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And then – I mean, we can focus – I would suggest maybe we focus on the easy – the relatively easy to understand use case of a human needing to find a Direct address of a remote user.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
I think that's pretty well scoped. The fact that that service might also be usable for other discovery purposes perhaps triggered not by humans, but by services looking for their counterpart, maybe that's a next generation or something.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, I can't –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
You don't typically go find a patient's record by starting with a provider and, I mean –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
That's a different task.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
– it just raises a lot of questions.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
But that's a different task, this is query for the provider.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Well, and for the – this is – they want to be able to discover the query endpoint for a targeted query, something completely different than Direct.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
That's exactly –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
I'm pretty sure that's what they want here.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
– that the query for a patient record, if you go back to slide whatever it is, 2, is the second task. The provider directories is search for a provider and respond to search, that's how they've described it.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, but this is – you heard what Kory said, this is service discovery.

Kory Mertz – Challenge Grant Director – Office of the National Coordinator for Health Information Technology
Well, I mean –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
I don't – look back on slide 2, which is the task from ONC. And that's what ONC's asking us, they say task one is to search for a provider and respond to the search. Task two is a query for a patient record.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
I agree, but – that's clear. But when you get to these guideline slides 1-5, and you read the scope, there – they've changed, it's not – it doesn't match that list.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah maybe –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
So, I mean we can keep going forward and I think it'll come out later on where the distinction is, but –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, maybe they've –

Kory Mertz – Challenge Grant Director – Office of the National Coordinator for Health Information Technology
And so this is Kory again, just to clarify. Both of those recommendations are from the IE Workgroup, the provider directory one and the targeted query. So I think they saw these as potentially a package moving together, so just something to keep in mind. And to clarify what – the query piece, I don't think they were just thinking about services, but they were also thinking about a potential endpoint.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
Yeah, and this is Debbie, I only copied the provider directory, I didn't provide the additional query information, so that might be causing some confusion as well.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
You only copied it for the –

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
For the provider directory, because that's what we were focusing on today. So, I just – it's a very large recommendation, so I only copied what they were talking about for provider directories only.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
So I'm trying to get clarification here. So the slides that present the Policy Committee's recommendation were all presented to you as provider directory recommendations. Is that right, is that what you're saying?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
– Dixie, what I'm saying is, in the IE recommendations, there were three sections, provider directories, query for a patient record and the provider data migration. It was very long sections so for today, I only took a snippet of the provider directories recommendations, to focus on for today. I did not add the query for a patient record, though listening to this – to the conversation, it sounds like they're related and probably should have been looked at together.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Well, I don't think they're that related.

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

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
And I think that – I would agree with David that the verbiage here makes it sound like they're mixing the two.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah and, I mean, there's a high level strategy around the query for the patient that involves whether or not you're using an MPI service and a record locator service, way down the chain of sequences is you have to do address discovery of the remote service. You should only address that after you've solved for all those other, more upstream decisions, because the way you query for that remote service may be radically different if you have a record locator, for example. A record locator would typically return that kind of information.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
So it's – I would suggest we focus in on the provider look up for Direct, because we know that's a use case that's been requested, we know there's need for it, we know there's a proposed workable solution, let's work through that one.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
I totally agree. Yeah, okay.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic
This is Cris, just last point. I understand where we're going here, it all makes sense to me, but I would say I've been away from the NwHIN Power Team maybe for a little bit. It would be helpful for me to see all the recommendations, whether they're bound together or not, just as context. So I wouldn't mind seeing them just as a workgroup member getting myself up to speed, to be able to talk about these in context.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
I will send them out.

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
This is Michelle, I just sent them to Caitlin to distribute to everyone. So the final transmittal letter that was sent over from the Policy Committee should be in your inbox soon.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic
You're the best, thank you.

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

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
That will be helpful, thank you. Okay, next slide please, or, I guess we're up to like 4 or something, 2 of 5, 3 of 5, 4 of 5.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
So, one more question Dixie, this is, now I promise less disruptive, but back a couple of slides, it sounds like – well, let me – I'll just read it from the other slide. Validating, authenticating credentials of requesting entity, are we assuming that this provider directory information is protected and has to be authenticated before accessed?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
That's what it sounds to me like, because that's what that describes, is authenticating the identity of the requestor.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
So that creates immense complexity by adding that, right, I mean, is that what they really mean, I wonder, because now you have to have some kind of service, a central service to manage cross-system authentication and trust, and we know how – as soon as you get into the trust space, these projects grind to a screeching halt. Because it's so hard to get the trust agreements in place. I would have thought provider addresses for Direct were public.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Well, what I was going to say is, if this query is done using Direct, it will meet that requirement, presenting authenticating credentials of the requesting –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
No, no, the PD, the directory query isn't done with Direct, it's done with L-DAP or something like L-DAP.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
What I'm saying is, it's not really that much harder than a Direct message.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
But Direct is stuck on the trust issue, in the real world, big problems. I mean, they're working through them, but it's – the technology was easy, the trust is really, really hard. So I'm just – I guess there's an assumption here is that provider directory information is somehow sensitive and protected.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
That's where I would come down. Why is it – why is that? Where is the policy that requires that both ends be authenticated to each other?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, that's my question. This reads like there's a policy decision in that space and I would question that, but, I've just raised it, we can keep going, but we'll come back to it, I bet.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, I think we should ask that question. Okay. Did you get that one, Debbie that we want to ask a question about what policy is driving the need to –

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
– provider information is sensitive and protected, that it needs to be protected, yup, I have it.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Well that's – not even that it needs – because you do want to protect it from an integrity perspective, but that the two ends, the querier and – the two ends of the query be authenticated to each other, that's what we're asking.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
I mean, and it may be good reason, I just want to call it out, because that really adds complexity, that's my only goal is to make sure we understand the consequences of these decisions.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, yeah. Okay, next slide, please. Let me see, where are we, they should provide the minimum amount of information necessary, see, that further makes it, yeah – to address and encrypt directed exchange and/or query for the patient – see, this is mixing the two, I think.

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

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
These recommendations are mixing our first two assignments. Yeah, yup. I'm glad you caught that, David. Okay, next slide. But this discussion, this initial discussion, is to be clear, we're focusing on provider directories only, not finding patients – or querying for patients.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Or query for service endpoints.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Right, right, we're talking about human – we're focusing on human query for provider information. Okay. And these are just the recommendations we've presented before. We did an assessment of what the standards were out there and we talked about these would be the recommended standards.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
These came from us, is this our stuff in the past or –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, this is during, I think during the first year, 2012, of – in fact, in my copy of it, I'm sure I put the date on it, because I looked it up, I thought it was important. That was May 18, 2011 we made that recommendation. Okay, and then the next slide was a recommendation made January of last year, and by that time – in between, we should have this in here, but remember, we recommended the use of microdata instead of HPD.

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

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
– LDAP – .

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
We explored the use of microformats assuming that you could embed this in public web pages and there wasn't enough traction for it to go forward, but yeah, that was our initial recommendation.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, that – yeah. So, I think that actually came in between these two, we recommended that, microformats, yeah.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic
But in any case, when we were looking at microformats, my recollection is it was because of some perceived limitation of HPD. So when I see the slide previously where HPD appears in every instance, do we still agree with that or should that be listed as a legacy recommendation? I'm not sure, I'm just asking the question.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
I think we're going to get a new recommendation that is – it's my understanding we're going to get a presentation of what the modular spec team has done to try to improve on those previous recommendations.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic
Well that sounds sunny, I'm in favor of that.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, so let's move on to that, without further ado. But just to be clear, this first task is focusing on provider directories. Okay.

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

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Are we ready – we have a team today to present to us on these – would you queue up the next slide presentation on – whoever's driving the modular specification.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
Yeah, this is Matthew Rahn with ONC.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Oh, thank you.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
I'm with "Dragon," Nagesh Bashyam, who's the technical lead for us, but I'm going to go through kind of an overview and I'm going to let "Dragon" dive pretty deep for you all, once I kind of give an overview of where we're at.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Okay.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
So, can you go to the next slide please? So here's kind of the agenda. I'm going to give an overview of the ModSpec Provider Directory Project and then we're – I'm going to have "Dragon" go – dig deep into the Federated HPD spec, which is the result of ModSpec PD Project. Then we'll talk about the lessons learned from pilots and ConnectaThons. I also have Kory Mertz on the line who had led the Exemplar Governance Pilot – Grant Pilots in New York. And then we'll kind of gauge our thought on the specification maturity and the adoption of it right now.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Okay.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
So, I'll just get going. Can you go to the next slide, please? Can you hear me okay?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yes.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
All right. Perfect. So, we had discussed with – or we had heard from the community that there was a need for a single standard for provider directory over about a year ago. But – and so we had decided to put the current – or find out what the provider directory standards were out there and kind of put them together and get a kind of sense of what that standard should be that we would recommend. So our goal was to identify and improve the PD standard – the PD standards out there, but also just make a single one, and there were multiple out there with the HPD Plus, HPD with organizations such as NATE and IWG and there are a few others out there.

And so we kind of just took those and kind of worked with our advisor group, who we had met with before. We launched to discuss what way we should be heading and just a few names on that list of advisors were Rim Cothran, John Donnelly, I'm blanking on a few others, but we had four or five that helped us get to where we are right now. And I'll reiterate a few times throughout, but it was an open process, as you see in the next bullet there. But really, what the goal is to take a standard that is fairly widely adopted and make it easier to implement for vendors. And so we put it through the process, it's – we started about a year ago. It was open, all calls were open to the public, kind of like this. All feedback and dispositions were made publically on our website, the ModSpec website. And so we were looking for real world implementers, the spec of HPD and we consulted them throughout the whole process. Next slide, please.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Is this an S&I Framework activity or an ONC internal?

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
It's not an S&I Framework activity, it's separate, so we had basically started with what the S&I Framework did with their use case 2, provider directory standards, electronic service information discovery and we kind of based off that we've – along with reaching out to other people who had been implementing a provider directory standard. But it's not an S&I Framework Initiative, it's separate, kind of more on the implementation of a standard and S&I Framework would be to kind of create it. So, does that help, Dixie?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yes. Thank you.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
So, what we developed in this – in our project was an RTM, an implementation guide and platform independent test cases, which were all worked up into the RTM, so it's easier to kind of trace back test case to requirements. And then we created a test implementation based on that RTM and that's also – that's available for download at our – at the Wiki site, has a provider directory implementation based on the RTM. There's also a test tool on the site ENV.org, the standards implementation and testing environment. We just launched last week the site, provider directory toolbox that has a forum plus the way to test your implementation. And there are other developer friendly artifacts on that site as – not that site, but the Wiki site siframework.org, I think backslash modular specs, but I can send that out after, if it's not on here. I don't think it is, but which also has the UML class diagrams explaining the data models, the documentation, basically understanding the underlying requirements and links to the other work that we had come across while doing the research for launching this project. Can you go to the next slide, please?

Okay, so as we did the environmental scans, we've done multiple over the past year, we did one kind of before we launched the ModSpec Project and then kind of after we had submitted a proposal to IHE to update the HPD standard. But, for the environmental scan that we did during the ModSpec Project, we identified some – two specific standard updates and then one just overlying – there was a lack of a single specification for vendors to target and so that was really what we heard, we need a single standard for provider directory. And from that, we had heard that there is a need for federation capabilities and an error handling capabilities, but mostly the federated part. And I'll let "Dragon" kind of dig a little more into detail about that. Can you go to the next slide, please?

Okay, so, yeah, so for the ModSpec Project, we had taken the HPD standard and kind of mashed them all together with what everyone was working on, but it was basically what the HPD standard is plus the change proposal 601, which "Dragon" will go into a little more. But we added federation capabilities, error handling capabilities and we coordinated across New York eHealth Collaborative on their PD pilot. I mentioned that Kory had been working on. And we submitted changes to IHE to include federated H – a federated model into their HPD standard and we had been approved and submitted to the IHE USA.

So what we've done from there is work with them weekly at least, that was in the September timeframe. So October to January we were working with them to get vendors to implement the standard and then test it at the IHE Connectathon, which we did pretty successfully and we had five vendors there, in the New Directions Track at the IHE Connectathon test it. And then a month later we had a very well received demo of – at HIMSS, in the interop showcase. We had – everyone that saw it pretty much liked it and I think "Dragon" will go and talk a little bit more about that, too. So, if you can go to the next slide, please.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Hey Matthew, this is Dixie. The last we looked at HPD, as I recall, it already had been modified to support both SOAP and REST transports, is that – did you look at both of them or did you just look at one or what?

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Dixie, the – this is "Dragon" here. The HPD specification does not continue to support RESTful approach, it only supports a SOAP based approach. We will talk a little bit about some of the feedback that we received from the pilots and the Connectathon about RESTful approaches. But right now, there is no RESTful profile for the HPD.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Well that's interesting. I remember John Moerke telling us that it was – it had been modified so that it supported REST as well. Okay.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
Yeah, so I'm going to "Dragon" here. We are – ONC is looking into a RESTful approach and we're kind of just exploring that right now and hopefully in the upcoming months we might have a little more on that. But right now we're in exploratory phase and our hope is to probably provide a RESTful approach as well. So, I'm going to turn it over to "Dragon." So, thank you, I'll still be here, though.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Thanks Matt. Hopefully everyone can hear me. This is Nagesh Bashyam, "Dragon," working as a contractor to ONC. I'll just walk through some of the technical details of the Federated HPD specifications that came out of the Modular Specification Project. So if you go to the next slide, we'll discuss about the data model first. Many of you might be aware already, the IHE HPD is a base specification that was taken by the ModSpec Project and there are multiple CPs that have been since created, CP 601 being one of the significant ones, and I'll talk about that a little bit.

So the data model, the underlying data model is based on the ISO 21091 Provider Directory data types, which are used. The data model does support individual providers, organization providers, relationships between individuals and organizations. The modifications that have been added to the change proposal 601 include support for electronic service addresses, which was outlined in the S&I Framework use case 2 of the provider directories, which was electronic service information. It also added in credential information and provider membership, so all of those things came in in the change proposal, as part of the ongoing – stack.

So the base model is 21091 and then all these modifications have been added into the IHE specifications. There was a time when these specifications were kind of completely in flux, where the EHR IWG workgroup had in – taken the IHE HPD specification and then created what they called as the HPD Plus, where they had added support for electronic service addresses and credentials and memberships. So all of that had been folded back into the IHE spec now. Could we go to the next slide?

This is something that you probably cannot see a whole lot. It's a UML diagram that kind of describes many of the classes and associations that exist in the data model. There is a version of this on our Wiki that you can find – people, if they want to review the data model. Go to the next slide.

So from a data model standpoint, like we just discussed, it does support individual providers, organizational providers, memberships, electronic services and so on and so forth. We'll briefly review some of the query and result structures and semantics. Right now the existing IHE HPD specifications, by virtue of which the Federated HPD specifications that we are talking about, are using DSML directory services markup language version 2 as the query and result structure, that is the standard that is used. It basically allows you to structure a query on the directory and get the responses back. It supports filtering based on various criteria like "and," "or," or "not." It does support regular expression like matching, like substrings or approximate matches or exact match, those kinds of things. Those are all supported in the DSML standard that exists currently. Could we go to the next slide?

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

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
The transporta – transport and application protocols again the Federated HPD uses what's in the base IHE specification, which is SOAP 1.2 over HTTP. And only synchronous web services are required and supported in the profile. And the other thing is – I will get into that. So it's a DSML package within a SOAP envelope transported over HTTP is kind of how the overall structure would look. Could we go to the next slide?

From a security standpoint, right now the existing IHE HPD requires mutual TLS, which means both endpoints are authenticated, I think David brought up some really good points earlier, which should be examined. Right now that's kind of how the baseline is, there are no other additional security controls laid on top of it, so that's kind of the baseline right now, in the IHE specifications. If you go to the next slide.

From the federation standpoint, so the other thing that we discovered as essentially the base IHE HPD specifications in its current state, what the federated HPD part did, as part of the Modular Specifications Project is, introduce a wrapper to basically wrap the existing HPD request, which is expressed in DSML. So that we can add additional metadata in both the request and the response side, which essentially enables a client to indicate if a request should be federated among multiple directories, if such a federation is available. It'll also allow clients to target exact directories, so for example, if you federate a request to multiple directories and you get responses back, but for a subsequent query you want to target a specific directory, you could do that, using the metadata information that you receive part of directory ID.

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

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
How does a given node know how to federate, how do they know where the other nodes are?

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
So there is – sorry, something that the organization will have to either discover or figure out, there's nothing in the specification that says how you do it. So a client could send a federation request to a particular directory and if the directory has some other internal registry or internal mechanism of saying, I have four other directories reporting through me, then they have to federate to that using the same request. If they do not know that, then they will basically serve out whatever they have. So –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
So is it a cascading model or does the querying – the original querying node have to send the query to each desired responding target?

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
It's a cascading model so, for example, I send to – let's say I am a consumer. I can send a request to your directory and if you have three other directories, then it is your responsibility to send the same request to those three directories, collect their responses back, aggregate them and send it back.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
So the querier doesn't even have to know – it doesn't –

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
No, the querier wouldn't – knows only the endpoints that he or she is aware of, right. The querier – from a querying system standpoint, let's say for example, this was a model that was an upgrade in one of the states, like a local HIE would query the state level directory. And the state level directory would then federate to all of the other local directories that were kind of –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
And the specification just, it sounds like all it contains is the method of packaging the query so that it can be federated, but the specification itself doesn't really specify –

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah, basically it has the metadata to say, yeah, federate this request. The client basically can indicate, I don't want you to federate or I want you to federate, that's all they can indicate. And then server essentially can decide, based on that attribute, saying okay, I did receive a request from a client and they're asking me to federate, do I have any directories to federate? If I do, I could federate, if I do have directories but my policy does not allow me to federate, then that's still the choice of the server not to do it.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Um hmm.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
But my point is that each node is going to have to know a list of other nodes to send to. Those other nodes may or may not know about other nodes, but there's no guarantee that you're going to reach all the nodes.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
That's right.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Well, it doesn't even have to know because it's up to the directory to decide for itself whether it sends to other nodes or not.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
No, but Dixie, my point is –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
So, it may be in a directory –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
My point is that somebody's going to have to maintain this network of nodes capable of responding, because there's not a discovery model.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
That's right, there is no discovery mechanism in the specifications right now for – to list out the directories that one could query.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, but I don't think they –

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

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
– it would be nice if somebody kept that list, but it isn't – wouldn't be necessary for this to work.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Well, I'm thinking of implementation difficulties. So let's say this is used to address the problem of Direct and let's say we have in the net net 50 or 70 HISPs out there. Every HISP is going to have to know about every other HISP, and if a new HISP comes online or one goes out of business, they're going to have to have some out-of-band mechanism to update all that directory information, otherwise you won't get what you're looking for. This is a – there's a tremendous amount of implementation overhead in a federated model that doesn't have discovery.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, to really do it in a federated way –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, which is what they've put together here, that's what we got. I mean –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Um hmm.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
– again, it'll work but it's just a lot of implementation overhead.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah, the discovery part was essentially not discussed as something that needed to be solved in this particular version of the – but –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
– it's kind of a misnomer to call it Federated HPD because it doesn't really include the mechanism for federating, it just includes a provision to package the content so that if the architecture is federated, it will – it can distribute the query.

Jitin Asnaani, MBA – Director of Technology Standards and Policy – athenahealth
Well – this is Jitin, here. I would argue that that ability to distribute the query in the first place is an important part of federation. And I do agree with both points that Dixie and David raised, that it's not – the work is not complete, but certainly this is large steps up from anything else the industry has seen so far. So, if anything, this would lead me to think that we should be recommending further work on it to get to the point where we can actually have a standard for discovery of nodes or perhaps that's just one of many ways to go.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, I didn't mean that as a criticism, I should have titled that, I was just making the observation that this is not a specification to show you how to federate directories.

Jitin Asnaani, MBA – Director of Technology Standards and Policy – athenahealth
Right. Right, it's missing a key component that still needs to be built.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And depending upon what problem ONC thinks they're solving with all this work, we need to call some of these issues into question. So, I mean just like we discovered with Direct and trust issues that it doesn't stop just getting some technology pieces in place. If you don't address the implementation consequences, you have not really succeeded in your task.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Right. Yes.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
But, we need to hear more, let's hear about these pilots.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic
And David, to your – sorry, this is Cris. David's tier issue, I guess, my question is whether these are – whether these address the trust deficiency discovered by the folks working on Direct, either directly, excuse me, or in the form of some sort of compensating mechanism. Because I'm not clear how this addresses it. I mean, there's nothing that I can see in this recommendation to criticize per se, I'm just not sure how it responds to sort of the issues in the field today. I may be repeating exactly what you're saying David, but it would be helpful for me to kind of understand how you or others would see how this maps.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
I think that's yet a third – that's a third issue, that's a good third issue, you know the – yeah. It doesn't have the mechanism to really manage – build this federated community that David is talking about, but the whole trust that is another aspect of that same problem, I think.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, I mean if you want to set up mutual TLS pairwise amongst 50 HISPs, and you don't have a top-down trust assigning model, lots of luck.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
I mean, that's what we've discovered with Direct is it's really hard to get anybody –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
– even prerequisite to that, if they don't – you don't have a means – a governance way to really establish the trust relationships either.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, I mean, it can be solved, it's just you just don't – we just can't be naïve about it –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
– like I think we maybe were with Direct.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Just making observations, guys.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
No, no, it's good, it's good, and I think it's a good discussion to get a good perspective of some of the things that have been –

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
I mean, we were just really focusing on the standard and not necessarily on any trust policies that would go with that, so –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, we understand that, yeah.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Go to the next slide. So, as part of the project in – as the wrapper's required to carry the metadata for error handling on the federation attributes. There were schemas that were created and modified and then the – were modified also, based on the same schema. So, that's part of the artifacts that were developed in the project. Could you go to the next slide?

If you go to the – this is where we get into the pilots, if you go to the next slide. So, there were – we have three sections here, a set of lessons learned from the eHealth Collaborative, New York eHealth Collaborative pilots that were run, the lessons that we learned from the Connectathon activities and the HIMSS activities. So, there were a number of pilots that were run as a part of the New York eHealth Collaborative, sponsored by ONC. What we found out there was, there was a lot of confusion about the standards to be used and the versions of the standards to be used. Essentially whether it is HPD version 1.0, HPD with change proposal XYZ, HPD Plus 1.0, HPD Plus 1.1; some people were using basic native LDAP. So, there was essentially a lot of confusion about that within the pilots and definitely required a single standard there, that was one of the big things that came out.

There was confusion about value sets that was mentioned within the standards, because it was not outlined properly as to what the value sets were supposed to be, like for specializations and so on and so forth, what should be the exact set of values. The other thing, there was also confusion at that particular point of time, because the ONC Modular Specification Project at that time, had not been – not yet approved by IHE at that point in time. So, they were wondering, will it ever be approved by IHE and where would that land. The other thing is we also found out that there were federated solutions being implemented, but each one implementing their own version of how to federate a request and how to get responses back where the directories were responding in different ways.

Lastly, from the New York eHealth Collaborative pilots, there were some complex queries, which were cumbersome to do. When I say cumbersome, it required more than two or three queries to implement and get a complete response that you needed. And these were things that we captured from the four different pilots that are mentioned there, one was the Florida-Michigan Snowbird Pilot and there was a California State HIE-sponsored Pilot, then there was a NATE Pilot, which was crossing state lines and then the New York Pilot between vendors. Could you go to the next slide?

The New Directions Connectathon, and I'll just walked through what the activities were and then some of the lessons that we learned from these two activities. The New Directions Connectathon essentially was established to test out new specifications that are being developed and ONC submitted the federated HPD specification changes that we were working on and that was approved for testing and there were four vendors who participated in that and passed through the tests in a short timeframe. Surescripts implemented a relational database based directory. Care Evolution, Inpriva and NextGen all used LDAP and they got – they were able to incorporate the new schema from the new WSDL and be able to respond to most of the basic requests to search for providers and get response.

The same thing was then enhanced for the HIMSS Interoperability Showcase where the federation aspects were added within a month, and then that was showcased by the same vendors plus a new vendor, Verizon, who came on board within a couple of weeks. So, to get that demonstrated at the HIMSS Showcase. We go to the next slide.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
I have a question about the – well, that's a new – that's a Connectathon, so that's not really federation for actual use, right?

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
No, no, yeah, it's just a Connectathon –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
(Indiscernible)

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah, it's a test and then the demonstration was just a HIMSS demonstration, not production.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, okay.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
So if you go to the next slide. The feedback, again, that we received was by this time, because there was a lot of collaboration going on between ONC, IHE and the EHR/IWG, the confusion about the various versions of standards and specifications were becoming a lot more clear and that is – now that there all onboard, we're working towards a single specification, like Matt said. The tools that the Modular Specification team has created did provide a quick way for vendors to bring up their systems, test with the tools and be able to implement the specification. The other feedback that we also got was we should look at the RESTful approach in the future and, like Matt said, we are internally right now looking at what are the complexities around the RESTful approach for queries, if you could go that route.

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

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Could you go back to the – I'm sorry, finish this slide, I thought you were finished.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
There was one more slide on the feedback and then maybe I'll just stop there and you can –

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

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Go to the next slide, the technical feedback. Some of the technical feedback lessons that we learned was support for higher level queries to avoid multiple low level queries similar to what the NYeC learned, because the base specifications are still the same, that's one of the reasons why you see the same thing. The web services implementation needs to be further clarified with respect to WS are those same requirements and security and other aspects because it was not very clear to vendors, like the points that you pointed out, that mutual TLS was required – was required and so on and so forth.

Data model has optional fields and required fields, obviously, so certain use cases, some people implementing certain use cases mentioned that interoperability might be affected if we don't clearly define what attributes are required by the use case. Most of the core fields are required so that's good, but when you think of use cases like electronic submission for medical documentation and those kinds of use cases, that's where some of these issues come up. Vendors implementing – back end which we had, fortunately, because DSML it was basically markup language on top of LDAP, it supported all of the LDAP searches and so on and so forth. But implementing a DSML front end on a relational back end posed complexities because of the rela – they implemented only a subset of the DSML capabilities because they didn't require the other capabilities. so that basically threw some interoperability issues into play.

The other aspect that we also learned is there are directories, which don't always have all the attributes that are being requested for or searched for, and the response behavior in some of those cases is not really clearly outlined as to what directories should be doing. And then the value sets, which we also learned, which we discussed first. So that's kind of the general feedback. So I'll stop there, David, you had specific questions before.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, just one thing I just missed, you may have said it and I just missed it, but on slide 16, in the HIMSS Interoperability Showcase demonstration, you say, created a successful Federated demonstration using Google-like Internet search within a short time frame. Could you clarify what that means, Google-like Internet search? Is that something different than –

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
So what we did is in the front end, normally, typically you see this – typically in an area of searching for a provider people might think, okay, you go into this – I enter a first name, a last name, specialty and maybe a zip code or something and then search for it. That's kind of what people keep thinking. What Care Evolution did is in their user interface, they basically just had a search box, just like a web browser, Google search box. So you could type in like a name, specialty, zip code all on the same line, and they would internally basically take that and translate it into various combinations and issue the search request to the directories. And then they would get back and display them, just like Google would when you search for a website or some information on the web, click on that and get more information about what you got back.

So, it was neat from that standpoint in a sense that it was a more intuitive use of what you would see in the real world in the workflow. People would probably not be as interested in filling out the form with 15 fields and only some fields that – rather they did that whole thing. But, it was – in a short timeframe, they did that, but again, the number of combinations that you could do that, again, we didn't test all of the combinations, obviously.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, that's exactly the an – that's exactly the question and a good answer. I would, editorially say that a Google – a true, Google-like search would give you feedback as you type –

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
– so that you only type enough to actually find what you're looking for, rather than not knowing how much you have to type before you find it. But you'll never get that out of a federated LDAP model, so, maybe that's a pipe dream.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Right. It was better than filling out an old form and submitting it.

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

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
Mostly from like a visual standpoint it kind of looks like a front-end what Google looks like –

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

Jitin Asnaani, MBA – Director of Technology Standards and Policy – athenahealth
This is Jitin. For what it's worth, I stopped by the ONC booth to try out – to be a user on the – of this demonstration and it was pretty slick. I know that the big innovation here is really on the standard, that's what we're concerned about, but it was a surprisingly usable interface.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, although still not as good as a microformat true Google search would have been, had we been able to carry through with that, so –

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
Aw man, come on –

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
David I wish I was working on this project two years back when you might have recommended that.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
I know –

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Anyway –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
I mean, we have a way in healthcare of just making things really complicated and –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
So what is for us to do, I mean, I think you've got a good list of issues there that – your lessons learned.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Dixie, what's your understanding or maybe our ONC minders can tell us what our ex – what do we do, what's next? I mean.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
I think we have a few more slides, David.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
There's one more slide, David, maybe that –

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

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Could I ask one more question about the demo, the HIMSS Interoperability – and, in that demo and other demonstrations that you talked about, did you show how you could have sort of an interactive query where it would come back with 50 responses and you could interactively reduce that down to the one that you wanted.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
I'm sure it could, but I didn't specifically do that myself.

Jitin Asnaani, MBA – Director of Technology Standards and Policy – athenahealth
And Dixie, are you – this is Jitin, are you asking that if you made a query and it came back with let's say a handful of providers, so not just the one you are looking for, from there, could you choose the one that you are interested in?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Well even if it came back with 200, and you have to manage how many it shows you and you reduce it down to the one – you interactively figure out.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Right, you could add more parameters, more qualifications, which would reduce the search and get back more – better results. You could look at the entries, figure out, oh, I'm looking at Chicago, maybe I need to narrow it down to just Michigan and then you could add in –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, and that was – that you could do?

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah, you could do that and then the other thing that was also as part of the demonstration was, like if you got let's say 7 providers, you could basically, hover over each one of them and it will give you some very good detailed information on each one of them so that you could quickly glance through them.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
And it would also show you which vendor you received that information from.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah, which directory you received it from so that you could target that directory.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Uh huh, oh, that's good. Okay.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
But those are all just user interface –

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
– that any vendor could do, the question is whether the standard is good enough for us –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Also managing how you produce the results. I mean if your results come up with 500 answers, how do you present that to the – not only in the interface, but how you deliver it back to the client and all that business, too.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
Yeah basic –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Good question as to whether this has an incremental fetch or not. I don't know, does it have an incremental fetch or continual queries –

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
No, it's a one-time synchronous request repose.

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

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
Go ahead David.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
So if somebody types in the query, cardiology and they get back what, I don't know, what are there 10,000 cardiologists in the US?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Well what happens, I mean, does it die or does it wait until you get all 10,000?

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
So that would probably take – might take it a little bit, but, I mean, at the end of the day, all 10,000 of those would have to be on the same directory you're querying, right, or multiple directories that you can get. But, they all have to be aligned so that you get that many back, right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, but I thought the goal of this was to have one-stop shopping for Direct look up, so that the poor provider, if they're complaining that they don't know the Direct address, we certainly don't want to say, well, we'll give you a look up, but you have to know the endpoint where to look, that's a – that doesn't work. So we really want a service that does a universal lookup.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, I thought that's what – yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
If you typed in cardiology, you'd get 10,000 cardiologists.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic
At least. So, this is Cris. I took a look at that when we were at HIMSS and I think it's fair to say that it was an engineering demonstration of concept and not a demonstration of goodness to fit or operational feasibility. And I talked to a couple of people who were involved in it and I think it is fair to say it proves nothing in terms of its usability. But I think it proved a fair amount in terms of its feasibility in the way that they could use a search technique, the way that they could embed some of the security provisions in it. I think we just need to judge it for what it is.

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

Cris Ross, MBA – Chief Information Officer – Mayo Clinic
I don't think it damns future progress is my point. I think it established sort of a baseline that said it's at least feasible, but I don't think it demonstrated anything about its goodness of fit.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
Yeah so I mean our – as I said before, like ours is to put together like standard and not necessarily deal with the policy side – that searching a cardiologist and getting back 10,000, like you would have to have a relationship with that person you're searching. Basically you'd have to implement – implement the standard and then be like I guess connect with the other directories as well. And that's what you would get back, it wouldn't be like you would automati – the government isn't going to set up like everyone on the same thing, like that's not what the goal was of this project.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
But it's – but I think it is a reasonable goal, this is David again, a reasonable goal that every HISP, every Direct HISP would host a directory service of the addresses that they know about, assuming they get permission to host it, but let's assume most doctors want to be available. And you'd have a nationwide network, a federated network that somehow linked all these together. Otherwise, you've just swept the dirt of "I don't know the provider's address under the rug of, I don't know what HISP they use." And what have we gained?

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah, I think David your point is well taken, that having like a one-stop shop you could go to discover all the providers makes it definitely more implementation friendly in the real world and successful. I mean who sets that up, how it gets set up is definitely something that probably needs to be examined by all of the policymakers and other people. The standard itself, if such a thing were to be established, the standard itself could enable that network, such a network, because it could – across let's say the 70 HISPs and get the responses back and give it back. So again, going back to the standard itself, what it does is basically enables that model, the discovery and building of the network to achieve that in the real world, is something that needs to be evaluated and taken forward by the appropriate people, both from the ONC and from the other organizations that are involved. I think that's something that's beyond at least our –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
So "Dragon," this is David again and I hate to keep beating on the cardiology question, but one of the first things you test on nationwide system is scaling –

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
– I mean a system that you contemplate for deployment at nationwide levels as you test the scaling, and one of the scaling tests is, okay, what if somebody does submit a stupid query –

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Um hmm.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
– what does that do to the network? And I agree that looking up cardiologist against the nationwide network is a stupid query, but it sure as heck shouldn't break the system. So, have you tested how that would work if you had a couple of million names spread across 50 directories and somebody does an ill-posed query?

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
We have not tested at that volume, David. We did have two large directories that were used, I don't know the exact counts of the providers in them, one was from Inpriva and the other one was for Surescripts. Definitely both of them had a large number of entries and when I say large, in the thousands I'm talking about, not in the millions, tens of thousands is what I'm getting at. We have not tested that, which is a good ask for a follow on.

Jitin Asnaani, MBA – Director of Technology Standards and Policy – athenahealth
And of course, this is Jitin, and of course there may be one...more than one way to tackle that ask. I agree with David that we have to be able to respond to that ask, as – if we're proposing national standards. But there may be more than one way to accomplish that, some better than others, that could be – the architecture itself could be more scalable, the performance can be better, the constraints on how queries are done could be imposed. There are a few and I do think that that's going to be an important part of the – could be a large policy component here, but there needs to actually be some technical safeguards here as well that allows us to get to those ideals, even as policy kind of evolves to get us there.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Why don't we let you finish your last – I think you have one more slide, right?

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah, I think there's still one more slide, I think that talks –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, why don't we allow them to get through their presentation.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah, I think the – just to kind of give a timeline for where the specification is headed. Currently IHE USA is working with ONC and EHR/IWG workgroup to get a spec balloted and through the process in the July timeframe. All of the lessons learned from the Connectathon are being addressed as change proposals either to the base specification or to the national extension that we have. The test tools are out there and stable enough to be used. IHE SOAP and DSML, IHE SOAP is something that vendors that we have worked with have been familiar with for various reasons, because they've either worked on XDS, XCA and other protocols. DSML was a little more of a new thing for some of the people, but it was fairly easy to implement.

– adoption, so far the base IHE HPD specification at the 2014 Connectathon was tested by about 18 organizations. We had the federated one tested by about 4 and then we have been having vendor calls with the community and in the vendor calls, so far about 10 vendors have committed to implement the Federated HPD Specs as they stand today.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Our criteria and metrics for readiness for primetime, the maturity and adoption is just one dimension, the other is implementability, which considers both how hard it is to implement initially but also how much – things like some of the things that David brought up about coordination among different moving parts and entities that are implementing it. How would you judge the implementability of this at this point?

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Well the policy side on the trust definitely has to come along to make it really implementable from our standpoint. The other issue that David brought up, which is should we really have mutual TLS or should we just have one-way SSL given the sensitivity of the information in the directory, would that be sufficient is definitely a good thing to examine. Because it will make it easier to implement if it is one-way TLS and still give you the encryption capabilities required. So, that is another area that we should definitely examine.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
But does the spec itself require the mutual authentication – TLS?

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah it does because of the – they're all using the same basic IHE Web Services, which is specified in an appendix, which calls for mutual TLS. Again, we are going through right now working with the vendors, getting more and more clarifications on each part of this thing, but definitely makes it easier to implement if it is one-way SSL, policy trust testing evolves. Scaling, which is another thing that David brought up, should be definitely examined.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, yeah.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
So I think those are definitely good finds that have been brought up that should be examined and taken forward.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah. And going back to your question, David –

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

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
The discovery part which is tied to – the discovery part is tied to two things right, there could be a technical spec for discovery, but there's also the policy aspect and the trust aspect, which basically have to come along to say, if you do want to build out a single interface for the country. Then who does that, when does it get done, how does it get going, who controls it, what's the policy and trust around that and all of that stuff. So –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Well we now know why the Policy Committee came up with the requirement to have mutual authentication. They were backing into the policy based on the spec.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Well – this is David. I mean, I can imagine some justifications for the mutual TLS, one of which might be trying to proof the service against being crawled by marketers, for example.

M
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And so, you can understand there might be drivers for that, but you have to take into account that if you do require that, that you've now created a major implementation hurdle that you ought to have a solution for. And don't go blindly into the assumption that 50 pair-wise HISPs are going to easily be able to trust each other's certificates, that's just not easy, yet.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
That's one thing, the other thing also, David, what we have discovered in our pilots and implementation is these directories contain a lot of other information, which may or may not be – used in any of the use cases that we are having and it's not always segmented, right. So they're very sensitive to what is being exposed by the directory implementers. It's not always a HISP, a Direct HISP that has just the Direct addresses, right. Like Surescripts has a directory with cells and number of transactions – and similarly, Inpriva – all of these organizations have a lot of other information in their directories, so, it comes back –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Okay.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
But that does raise policy questions as to what – if the goal is to facilitate directed exchange –

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Right.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
– then I think you bend the policy around what people put into those directories rather –

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Exactly. Yeah, exactly.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
– around what's already there, that's just backwards, right?

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
That's exactly one of the other things that we discovered because you want to articulate what are the data elements that –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Right, right. And one other thing, just a comment that I saw a couple of mentions about doing a RESTful interface.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Um hmm.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
I would suggest that that's a complete waste of time, the last thing we want is two ways to solve this problem. It's an ugly enough solution as it is, let's not create a second parallel complicated solution and force everybody to implement both of them. That would be crazy.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, but you wouldn't have to – you wouldn't have to require everybody implement both, you could say –

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Oh absolutely you'd have to. I mean, every person that hosts the service would have to implement both, because they don't know – would be connecting.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
– that would po – yeah, that's right.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
This is Matt, sorry. I just wanted to say one more thing, and it wasn't on our slides, but there is a – the NPRM that is out, there is a section about Federated Provider Directory on there. And just wanted to let you guys know that the comments on that are due April 28 and if you have any comments on that, please – good or bad, please go to regulations.gov and if it's not on there – healthit.gov has it on our front page, but I don't have the direct link to that right now.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And which one – is this the NPRM comment or something different?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
The 2015 CEHRT.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Yeah, there are two – obtain voluntary edition that just came out.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, okay, it's the one we're already –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, but I don't remember the privacy and security group having a question about – we probably didn't about – I don't know, I'll look that up, yeah. Okay. Are there any – I think, to answer your question, David, I think what we do is we just make some observations regarding – like a lot of the observations we made today. Does – Debbie and Michelle, does ONC want us to report back to them our observations or what?

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
So Dixie, this is Michelle. I reached out to Micky to see if he's available to present during your next meeting, just to answer some of the questions that came up, would that be helpful?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
If what, if who would be, what?

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Micky Tripathi, the Chair of the IE Workgroup?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Oh, oh if he would be available for our next NwHIN, the Power Team you mean?

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

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

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, what do you – yes, I think, what do you think, David?

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, I think that would be great to get clarity on what – where they're coming from, what's driving – what policy is driving. I think that would be very useful.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah. And we could get clarification on all – in all three areas, actually. Once we see the complete list of recommendations, it would be really useful to hear him explain them to us, yeah.

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Okay, so hopefully he can attend.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, that would be great, thank you for bringing – for suggesting that, that's a good idea.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
And then also pull together observations that were made today.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yes.

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator for Health Information Technology
Right. That's on my list.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Okay.

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

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

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
There are other ways to solve this problem, but I'm guessing that we're too far down this path to go back, so, hopefully –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
We keep trying to go in a different direction and we keep being told that this is the way everybody wants to go, so.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Yeah, this is one of those – it's just got its own momentum, even if, in fact, its –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
– a snowball that started rolling in 1975.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
It's – in DC.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
We could resurrect our old microformat recommendation.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Well, you could do a lot of other things. You could have a simple service that serves this up really slick from a single place and then have the various owners of directories submit the names that they wish to expose, instead of having everybody host a service, just have everybody submit the names to a central place that hosts the service and –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, yeah, one or more – federation.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
There are a lot of ways you could do it to simplify it. No one would build it like this –

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Okay. Let me thank you presenters, we really appreciate your taking the time to brief us on this work. I know we aren't a huge audience, but obviously we're an attentive audience and an engaged audience. So we hope that you gained some benefit from talking to us as well.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
Yeah, thank you.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Thank you very much.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
And we're not shy.

Matthew Rahn – Program Analyst – Office of National Coordinator for Health Information Technology
We knew that coming in.

Nagesh (Dragon) Bashyam – Independent Enterprise Systems Architect
Thank you, thank you very much.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Yeah, thank you.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Do we have to do public comment?

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
This is where we open it for public comment.

Public Comment

Michelle Consolazio, MPH – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Yeah, operator, can you please open the lines for public comment?

Rebecca Armendariz – Altarum Institute
If you would like to make a public comment and you are listening via your computer speakers, please dial 1-877-705-2976 and press *1. Or if you're listening via your telephone, you may press *1 at this time to be entered into the queue. We have no comment at this time.

Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates
Okay, thank you and thanks everybody for dialing in.

Jitin Asnaani, MBA – Director of Technology Standards and Policy – athenahealth
Thank you Dixie, thanks David.

David McCallie, Jr., MD – Senior Vice President, Medical Informatics – Cerner Corporation
Thank you. Thanks Jitin. Thanks "Dragon" and Matthew.

Jitin Asnaani, MBA – Director of Technology Standards and Policy – athenahealth
Take care all, bye, bye.