Clip1ATK70_MP3 96K
Panelists John Ruegg, Mike Overton, Maury Mitchell, and Tony Lucich, and Interviewer Di Graski

1

Di **[00:01:10]**:   We have been talking about two pilot projects in Orange County, California, and in the four-state CONNECT Consortium, and we talked a lot about the implementations that have already occurred. This part of our conversation, I'd really like to focus on what you all predict the future holds. What are those business needs that are still outstanding that need to be addressed? John Ruegg, the chair of the Global Federated Identity and Technical Privacy Task Team, what are the things that your team is focusing on? It's kind of our "Future Frontiers" conversation this morning.

John, do you mind if we start with you? Tell us, what have you set your sights on in terms of your Global workgroup?

[00:02:03]

John: I think that our group is going in the direction of basically two goals. The first one is to define an architecture for the privacy policy and security policies implementation in terms of automated security rules. The second thing is that, in order to write these rules, you need a common vocabulary. And so the other piece that we're developing – and it'll be an ongoing process – is what is the vocabulary of attributes that would have to go into a rule that makes up a policy that can be commonly shared for information exchanges? The current architecture we're looking at is the XACML, X-A-C-M-L, XML Access Control Markup Language.

[00:02:58]

But there's a couple of other areas that, in terms of futures – XACML really works as a separate process between the information you want to access and the people who want to access that information. I can see in the future potentially digital rights management. We ought to take another look at that, where we're binding the rules about the data more tightly with the data; it's not an individual process. And there is some work in the standards community on really going a lot further with encryption keys so that you can actually protect distinct records.

Now we're encrypting who databases and tables, but actually encrypting pieces of information and then attaching those keys to various digital rights. That's a fairly – encryption has not expanded as much as I think potentially it can because you've got to have two keys. It's like you with your key chain, you might have 50, 60 keys in the future to different types of information that you have access to.

[00:04:05]

So the management of those keys is going to be a real challenge. I see XACML as kind of the state of the art today, but in terms of going into the future, I see a couple of other areas that we might see some convergence.

The demand in the marketplace, there's just a lot of public awareness now of privacy and privacy rights, so I do think they'll be an ongoing market demand for tools, and there's too many rules to just keep track of by your programmers on all of these different resources you're going to access. But encoding these tools is going to really make this, hopefully, a manageable process going into the future. That's kind of a summary of where we're going.

Di: So John, I picked up a couple of things there – the XACML architecture, building out the standards for the attributes that we use in our public sector, right? Digital rights management, encryption at a data element, and the continuing maturation of vendor products, open source products.

Mike, do you want to pick up on any one or more of those and give us your predictions of what you see happening in the future, what your needs are?

[00:05:26]

Mike: The encryption of the privacy rights is a key thing. But I also think that it's going to be evolving just like the technology itself. As the implementations mature, as the products mature, as commercial products mature, we're going to see what's missing. We're going to find out what the needs are, what's not there. We're going to discover things that are being done in other little segments or by add-ons or by policy. Especially things that are done by policy that can be integrated in the technology themselves and integrated into a complete solution are really key.

[00:06:00]

It makes it easier for the user. It makes it easier for the implementer and everything else. This is still, to me, new stuff. There are so many things of it I just haven't even thought about, and they keep getting touched on. That's going back to the importance of standards, how they're being adopted – being

	adopted by vendors, being adopted by commercial people, as well as products. I think it's going to keep changing, but it's going to have to evolve.
Di:	One of the things that you've mentioned previously about the CONNECT project and how you're managing your users' expectations is that you've really tried to prioritize a list of enhancements for the future. Do you see anything on that list of enhancements that needs the attention of a Global working group or that kind of a brain trust where you're bringing in the national experts to bear down on this problem and develop solutions? Or do you feel like everything on your priority list, you understand how it's going to be implemented using the tools you already have available to you?

[00:06:58]

Mike:	I think the leadership, and I think the foresight coming out of the groups like Global and the working groups are really key, because we've been following that at our level. I don't think we want to try to drive their priorities. I think they've done a great job of identifying things and putting the standards out and allowing us to kind of pick and choose what we need and implement it as it happens. For us, it's also a matter of, as we get things in place, then we might be able to identify shortcomings, be able to identify our own particular needs as they apply to the product. But I think the standards have really been key for us being able to just implement things and follow those.
Di:	Maury, do you have something?
Maury:	I was thinking, in terms of the way we're taking data now and doing more things with it, from a traditional classical viewpoint that oftentimes we approach the problem initially with, we've got sort of a future roadmap of ideas with the data. We sort of have a handle on what we want to do from a classical standpoint.

[00:08:01]

	But the great part about the technical working group and the other technologies that are being matured here is there's a new versatility that we can apply to the data. We can do more things that we've not even imagined now. I like the idea of – where we're going with this is a much broader net. Instead of this traditional law enforcement officer taking data and doing something with it,

Clip1ATK70_MP3 96K
Panelists John Ruegg, Mike Overton, Maury Mitchell, and Tony Lucich, and Interviewer Di Graski

4

particularly investigations, but other pieces of their work flow, now we're adding other members of this community, broadening that net, even to the point of more public safety related matters and first responders and emergency managers and finding ways to assist everybody with this cooperative effort of data sharing.

But, of course, the more we add people, the more that different rules apply to the way the data can be used.

[00:09:00]

Now, what's great to me about the PAP, the policy administration point, the rights policy, administration policy, all those new concepts coming toward us out of XACML, it allows the person or the entity that knows the data best to shape up the rules. What's going to happen is it's going to require us – force us into this corner where we have to start thinking differently about our data, applying new business rules on our end about how things are going to happen with our data. But the possibilities are just really dramatic here.

Di: Tony?

Tony: So in hearing some of that conversation, I know we've got a pilot in place that we've talked about. What we're finding is it's much like sailing, in that we're tacking one way, we're learning something, and we're tacking another way.

[00:10:02]

We're really not – we're looking to the leadership as the big vision, but we've got to try and get there with our tactical projects. So some of the things that were mentioned, like yes, we're bringing in private attorneys as part of our client base, and they have a different set of rule needs than our court and our law enforcement. The other side of that is that with the cloud coming in, some of the data isn't necessarily going to be protected in our space, so we have to have our rules expanded to include some protections around the data in its location.

More and more in our pilot project, we're using a table driven – I think we talked a little bit – so that the end users are able to pick and choose and write their own rules. That's the other thing that I think is different. Originally, I think we thought the rules were

Clip1ATK70_MP3 96K
Panelists John Ruegg, Mike Overton, Maury Mitchell, and Tony Lucich, and Interviewer Di Graski

5

going to be created by a single entity, some administrative group who understood all the data.

[00:11:02]

But the way we're finding it to work in our pilot is that as we register a data source, part of that registration is writing the rule. So the end user who is responsible for the data source, plus the users, are suggesting what they think the rules should be. That we didn't expect, so some of this planning for the future is being ready to crawl/walk/run, if you will, in terms of the maturity, and then being able to tack agilely as the world changes for us.

Di: So just to drill down on that a little bit, Tony, is that a similar concept to what Maury mentioned a moment ago when he was saying that the people who are closest to the data and know the data the best should be the ones who are at least initially developing the policies for access to that data, rather than there being this oracle kind of in the middle that knows all and governs all?

[00:12:00]

Tony: That's been our exact experience. When we brought in the private attorney firms for our court data access, they basically had an idea of what they thought they would be doing with the data and how they would access it that was outside the scope of our initial internal meetings, and that's why we started this process of allowing the end user to define what the rule should look like. Not necessarily does it become a rule; it's part of the workflow, in that they can suggest a rule, and then it gets reviewed. But we didn't want to restrict it down to what the core group thought would be the ideal. We wanted to allow the expansion based on users and what they knew, because they're using the data today.

A lot of it is through back door channels where somebody is getting copies of paper, but what we want to do is be able to cut off all the paper and move it through a formal channel that's auditable.

John: So the business owners basically are the ones that should know and should set policy based on their rules and regulations.

[00:13:03]

	And the people that they're interacting with can communicate to the business owners how they want to interact with that information.
Tony:	But structuring that conversation is the challenge we've been having. Creating a set of pull-downs so that you're trying to structure the framework by which rules are built, the categories, the uses, as you said, encryptions around the keys. One of the things that we came back with was using an Adobe feature so you can say, "This document can be viewed, but not printed." And then it's harder to enforce, but at least it starts the process of setting some restrictions on usage.

[00:13:42]
{deleted}
[00:14:13]

Di:	Maybe I'm being a little bit too much of a policy geek here, but could we spend a little time talking about how you envision this expanding network that Maury was talking about? You mentioned emergency management and public safety, but Tony, you mentioned the private defense bar. There's a lot of work going on right now in terms of healthcare and re-entry, substance abuse, mental health issues, child welfare and the whole human services realm. Could we just go around the table and talk a little bit about what you predict the next, most likely partners will be and how you'll work with them to integrate the vocabularies and integrate the architectures?
	John, could we start with you and what you see out there? And maybe you'll have your Los Angeles hat on, I don't know, rather than your Global hat.

[00:15:08]

John:	From the county perspective, we're going to most likely focus first on the agencies that make up the adjudication process, so we will be focusing primarily on the exchanges and the policies surrounding information exchange between law enforcement, the prosecutors, the defenders, the court, probation and the State of California Department of Justice.
	Even now, I can think of an example where there is some policy out there where they're asking law enforcement to redact certain

Clip1ATK70_MP3 96K
Panelists John Ruegg, Mike Overton, Maury Mitchell, and Tony Lucich, and Interviewer Di Graski

7

information before it goes to the court. Well, that's a labor cost, and it's not necessarily really happening.

[00:15:58]

But again, when you get into some of these policy rules and obligations where you can start developing some rule sets, and to the degree we're getting more and more where these reports are automated reports, you can now start automating some of those kinds of restrictions and policy rules.

So I see us working first with our internals. And then there are some bridges with mental health, children and foster care and probation, and education. There's some real needs and exchanges that need to happen there, and there's a lot of policy about health records and mental health records that can restrain those kinds of exchanges, so getting those business stakeholders together and identifying the business purposes for why they need that information and then using this infrastructure, layering over it to enable that, I think is another rich area in terms of new interfaces for us.

[00:17:04]

Di: John, as you begin – in Los Angeles County – as you begin to reach out to schools or to social services, are you finding an awareness that these solutions are already present and enabled in the marketplace, or are they a little bit surprised to hear how much work you've already accomplished in this area?

John: Our experience, at least in the county, is that these other communities are not really aware of these, even information exchanges being possible, because you've got attorneys and a long-term culture that says, "We do not share this information." And so they haven't really explored out as to how there is probably supporting legislation and supporting regulations for valid business purposes to set up exchange agreements.

[00:18:06]

We have actually entered into a HIPAA [Health Insurance Portability and Accountability Act] agreement with our health department and mental health to do some work with them on matching where they think they've got the same people in two different systems. We did some work for them, and then after we

were done with that work, we purged and all the things that you need to do, we did. So it's certainly possible to start bridging those, but I tend to see that justice, in terms of leadership, seems to be ahead of the educational folks. And healthcare is definitely another area that we have some people that have moved ahead in this space quite a bit.

Tony: But I think we've got to find one of those groups of people or entities to start this process.

[00:18:57]

Around the court system and around justice, there is the regulatory space for sharing and data exchange. Whereas internally we use MOUs [Memoranda of Understanding] between agencies to share common data between healthcare and social services, and so those data exchanges are still very immature compared to the justice exchanges. Where that's part of their business, over here it's still not core to their business, and it's not as mature in terms of what data elements and who gets it and what's the regulations and controls once they do get it.

So I think we're going to see an arrow that starts with the justice community, and then these other kinds of data exchanges will come along, but we've really got to prove that it works and change that ten years of culture where, "No, we don't share." That's just the hardest part, I think, is that reaction that it's always been, "No, we don't share." We're very fortunate in that we have some progressive judges who are really helping to open up that, saying, "Why aren't we sharing? What is the regulation that prevents you?" and asking those kinds of questions.

[00:20:02]

But I think that, again, it's what have you been living under for so long? "We don't share." And so it's going to take a community really moving forward and having some years of success before the others will get swept into that wave.

Maury: I agree with the idea that in law enforcement and criminal justice, we have been doing data exchanges for quite a while now, so it's not necessarily a new concept. But this umbrella, this net continues to sort of spread out in terms of the tangential areas we touch, whether it's traffic safety or first responders or even I think

– I know what my experience in the state of Alabama is – the idea of geospatial related data is now exploding.

[00:20:56]

People are realizing now this is not something that two or three people in an entity that have a GIS [geographic information system] degree that can use very difficult-to-use tools to produce a map. Now, it's very common. We can do amazing things! That alone has brought more people to the table, I know especially in my home state of Alabama, that we've never dealt with before. Whether it's economic development or transportation or revenue generation or healthcare services, and we're all sitting around the table discussing how you've got this data that could be beneficial to me or vice versa. So the possibilities I think are very much expanding.

I think a lot of thanks can go towards the criminal justice community for making this awareness possible, and certainly the leadership through Global – I can't give enough credit to, because it brings these issues directly to the table.

[00:22:00]

Di: What you're saying right now, Maury, reminds me of what Mike said a moment ago about how sometimes you start developing this capability, and then you don't even realize all of the applications until you start seeing it, and *then* you can imagine, like the spatial GIS. What were you going to add, Mike?

Mike: I was going to say, the talk of sharing data is great. I agree: either people say they don't want to share data, or they say, "We're sharing it by paper, and we accept that, and that's all we can do."

But people get over that hump of sharing data, and I think they need to change the way they do their work, and the way that workflow happens between the criminal justice community and social services and juvenile services. It's not just getting the information about, say, a kid – the information from a school to HHS [Health and Human Services], but it's a matter of changing the way that they deal with that data, the way that they use that information to really do their day-to-day work.

[00:22:56]

	And I think we're going to see some changes in how people do their day-to-day job because they have more data available in a real-time process, not just they have the information that they can absorb, look at, and put in a file, but because they can go back and not just receive information but send information back and change that whole interaction across agencies, across criminal justice, across HHS, and all those things. Again, I think it opens the door to do a lot more than just get at the data itself.
Di:	So what I hear you saying, Mike, is that there needs to be some thought about how information sharing can enable process re-engineering.
Mike:	Definitely. Process and workflow, absolutely.
Di:	And do you have any stories that you can share about how you have helped some of your stakeholders begin to envision what some of those new processes might be?
Mike:	In Nebraska, for instance, we're looking back to the notion of juveniles and the sharing of screening instruments between HHS and probation. The sharing of drug screening instruments between corrections and probation.

[00:24:01]

	The problem-solving courts, how that information goes back and forth, how the schools need to know which of their kids, in a very real-time basis, are interacting with the juvenile justice system, how many are interacting with the HHS system, to really get those services and get the interaction with the kid, with the family, get it back to more of a real time or as close to real time type of process. People realize that the families need to have that information as well, and not in the sense of data access, but they need to know that something is going on with a juvenile and what services are really being provided. So I think it's really changing the way, at least in Nebraska, that we look at what's going on within the schools, what's going on with the courts, what's going on with HHS.
Tony:	We're finding it's changing the form of the data, so instead of sharing that memo and having it be your internal document that gets shared, we're moving away from the documents, and there's some good reasons for it. Now that we're going to protect certain elements of the document, you need to have it separated.

[00:25:03]

So we're moving to the document – the information is stored as data elements, not as a common document, memo, court order. What you want to do is capture that data separately, because you can store it, you can encrypt the pieces you need, you can issue it out separately. Whereas when it was in that common document, you couldn't do that. They'd say, "Well, we can't share this memo," but yes, there's four or five elements of it, so we're trying to have the memo get created by the system. I think that, in the future, will become more and more of the change, so we'll be moving to documents that are created after the data is gathered, and the system produces the document.

For us, the document of record or the database of record is the key elements, not the memo, if you see what I'm saying. It's a change, and it's really going to drive it.

Di: Instead of thinking about it as an 8 ½ by 11 piece of paper, you're thinking about it as fields, as identifiable, structured elements. So that each one of those can carry its own metadata, its own rules.

Tony: And its own policy.

[00:26:08]

Mike: And if you need to create that 8 ½ by 11, you can, through the form of a standardized style sheet. Everybody can create whatever it be – a filing document, a memo, whatever it happens to be. You can still consume those other data elements on your own.

Tony: We've started doing that with our probation department, where they have a set of standard documents they issue, forms, if you will, and we found that there was a tremendous savings in not only the data storage, but in the flexibility we now have.

Di: John, you wanted to add something about the structure, I think.

John: I think forms are a perfect example. We use a lot of forms in this industry, and they're a perfect example of having structured, discrete components of the information that you're exchanging. You can look there as kind of low-hanging fruit as a place to start in terms of getting more structured information exchanged.

[00:27:01]

Tony: This whole idea of "smart forms" – in Orange County courts, they're using the smart form. Again, it's our first toe in the water, if you will, of having the data elements drive the form, but you're able to pull the information you have access to via the policy and get it pushed into the form. And you might push it into two or three different forms based on who you are as a consumer.

Maury: This is a change of culture, though.

Tony: It is definitely a change of culture.

Maury: The forms that we do fill out in our industry are just tremendous, and we're capturing data that we've never been able to use before. It's never been possible. It's got a domino effect though. Not only is the learning curve out there or the training business process, physical process, slightly different for the front line that does this, but then on the back end – this is part of that information explosion, how we more than double – we're continually growing and growing and growing our data sets.

[00:28:03]

There are responsibilities on all ends, but more responsibility, more authority, it all balances each other.

Tony: It's a shift from document imaging to data repositories. I think as a culture, that's just new for all of us, because for so long document imaging was how we handled it and how we released it, and now we're going to move into the data repositories.

Di: Tony, as you see a very strong movement toward more structured data and really thinking about it as a data element that can feed into some physical representation, do you see an increased risk of data quality issues? Or maybe you haven't experienced enough yet to know whether your users will fully appreciate the importance of getting it right?

[00:28:58]

Tony: I think that data quality is part of the reason the smart forms lend into it, the table driven UIs [user interfaces], the policy is up front, and that leadership about defining those elements in the language around which we say, "What is a category? What is a usage for

Clip1ATK70_MP3 96K
Panelists John Ruegg, Mike Overton, Maury Mitchell, and Tony Lucich, and Interviewer Di Graski

13

	that category? What are constraints?" because we need to get to that, but we have no seen it as a data quality degradation. We've seen it go up. Now we can force the end user who's creating that data to be very specific about it, and we know if certain things are allowed and not allowed.
John:	It really becomes overall a data quality improvement because you have different separate systems. Now as they're sharing information, you're discovering some of the edits and controls in System A aren't present in System C, and now you're discovering that there are problems with data quality, and then it provides a feedback loop. So really this flow of this information actually highlights data quality issues that you wouldn't have otherwise been aware of.

[00:30:05]

Tony:	The cross checks – we had an instance where we were looking at in-custody parents from child support side where they were looking. And they used to make an inquiry to the court about who's in jail today, and it's like, "For what purpose?" We started tracking it, and we found out that it was because they needed to know if that was a custodial parent that was in custody. Again, data quality goes up because you're now getting the information raised to a higher level as part of the transaction.
Di:	"Well, I understand the business need now, so I will do a better job."

[00:30:41]