



Blockchain Podcast Transcript

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John: Hello and welcome to TechNJ, I'm John Silvestri. Today's technology moves at a lightning-quick pace. It affects everyone from the help desk to top executives in nearly every corner of both private business and public government, and just when you think you have it all solved, a new disruptive technology comes along to change the landscape once again. On today's podcast, we'll have Dave Weinstein, the Chief Technology Officer of New Jersey, reaching out to the State of Illinois to talk to them about one such disruptive technology – blockchain. You may have heard of blockchain without knowing it; it is the underlying technology that enables the Bitcoin digital currency by making transactions both secure and decentralized. Of course, bitcoin has been in the news for years now, but the question that brings us here today is – what else can we do with blockchains other than finance? Can the public sector leverage it in new and dynamic ways? With that said, let me pass the mike over to Dave Weinstein.

Dave: Good morning, I'm privileged to be here with Hardik Bhatt. Hardik, how's it going?

Hardik: Going well, David. Good to talk to you.

Dave: Good to talk to you as well. Hardik, would you mind introducing yourself for our listeners?

Hardik: Definitely, David. Well, first of all, it's a privilege and pleasure to be on the podcast with the state of New Jersey. Greetings from the state of Illinois. I am the Chief Digital Officer and State CIO for the State of Illinois. I lead the Department of Innovation and Technology. In the state of Illinois, we have just close to a \$1 billion annual technology budget that I manage and oversee with fantastic team of 1500 people. I also play a key role as a Chief Digital Officer, and I'm building a digital economy strategy for the state, looking at how do we leverage the next wave of disruptive technology, blockchain being one of those, but you also have the artificial intelligence, robotics, machine learning, self-driving vehicles, and many others, and prior to doing that for the past couple of years, I led global business development for Cisco's Smart Cities and Internet of Things business. So glad to be here, David, and speaking about blockchain and what do we think about it.

Dave: Let's dive right in, Hardik. So, why don't you just kick it off by telling us a little about what blockchain is? We hear a lot about it in the news, in the media. It can be very technical, but for our listeners, which include both technical and non-technical audiences, try to break it down for us.

Hardik: Definitely. You know, in fact, it's coincidental that we are celebrating our first anniversary on the initiative that we started on blockchain, so if I go back sometime around this time a year ago, we started talking about blockchain. We had a small team that we formed because we started hearing a lot about blockchain. It started with reviewing a small position paper that a very fresh graduate brought to us and said, "Hey, this looks like something very disruptive." And, as you know, we have, in Illinois for the last two years, been doing – we are very open to external ideas and external thoughts. From there, we launched a working group in June of last year. We had brainstorming strategy session with Red Chalk and Lock and some of those blockchain thought leaders. In there and from there now today, I'll go through in detail what we've done with Illinois, but you know, basically, at a very simple level, blockchain is how you transact between two parties in a very secure manner, so it's basically, if I have to very simplify that, and I already used some big words in that simplification. In a way, blockchain is a foundational technology that is poised to disrupt how we do transactions in our economy and in our society.

Dave: Yeah, that's great, and you know, you touched a couple key themes there, one of which is security, and for me, as somebody's who's grown up in the security world, blockchain is kind of where security intersects with trust, which is a word we're hearing more and more in this context, and we've seen blockchain already deployed fairly maturely in some industries. For example, financial services and thintech. In general, blockchain is increasingly prevalent. Where do you see it playing a role in government moving forward?

Hardik: Yeah, so in Illinois, we have taken a three-prong approach in there. We have an exploratory approach where we are looking to see how can it be used inside the government. We have an economic development approach where we have appointed a single point of contact, our liaison for the business inside the government, as it comes to blockchain, and then we are looking at a collaborative approach between the government, the private sector, as well as the academic sector. We have built a sandbox where you can, you know, test out various use cases of blockchain. Within the government, you know, we did a request for information and RFI late last year, and we got a tremendous response, David. We got 20 responses from the industry, and the proofs of concept that were suggested included things like academic credentialing. Property deeds is something is something that one of – our largest county, Cook County, is already looking into doing that proof of concept, and we are working very closely with them. The energy marketplace, you know, around carbon offsets and energy tax credits. Health care provider registry is another area that was suggested. Vital records was another area that was suggested. In general, I think that everything that has – I'll go back very shortly to my criminal records management system background. Anything that has a chain of command kind of transaction style that requires distributed trust method is where we can apply this, so I mean, there are numerous ways we can look into applying this into government, but at this point, we are looking at it more as within the government is exploratory, but outside the government, we are extremely focused on economic development. In fact, Illinois entered the first blockchain

ranking globally as number 5. In the US, we had already demonstrated ourselves as a leader, right with Delaware, who did get a jumpstart on this one.

Dave: One of the things that intrigues me is that government is so ripe for disruption in this area, and there's so many logical use cases. We heard you go through a number. I often tend to hear the Department of Motor Vehicles in various capacities as being applicable to blockchain use cases as well. You know, I'm curious because the concept of blockchain at times can be a bit paradoxical to those in government. It's been described, especially among Libertarians, as an opportunity to shrink the size of government and reduce the role of government as kind of that trusted third party. I'm curious. How do your colleagues in Illinois, either on the tech side or among the key business stakeholders, how have they received this discussion about blockchain? Are they threatened by it? Are they scared of it? Are they confused by it?

Hardik: The sentiment is more around eager to improve government, as opposed to threaten. You know, I'll tell you even within the technology department, we are running at about twenty percent below headcount, and it is extremely difficult to find the right talent at the pay structure that, you know, you are the government as well, that we can afford, especially with the technology that is significantly fast in terms of changing, so the governments actually have to find a way to continue to deliver better services with fewer resources, and that's where I think this is an opportunity, not a threat, because this allows us to move our precious resources that we have to do more work at a higher value chain, as opposed to doing the mundane work of taking data in, issuing records, and following up and producing more paper. I think this automation creates a tremendous opportunity to use resources. Also, being a disruptive technology, other sectors within the economy, it also is kind of staying ahead of the curve, allows us to track more businesses, more jobs, and be able to create more entrepreneurship in the state of Illinois that we have seen already. So, in general, what I am seeing is Illinois, and our people are hungry to innovate and improve services, and it comes from all the way from the top from the Governor, and we continue to want to innovate. So, as I said, we see this as an opportunity, not a threat.

Dave: Yeah, well said. You also touched on automation, and I think it's worth noting that blockchain is fundamentally conducive to automation and potentially even machine learning platforms that are coming down the road.

Hardik: As the Chief Officers, one of the roles, as I said before, I am playing is to look at how the economy is going to get disrupted over the next decade through this technology automation but also through scientific breakthroughs and kind of prepare the Illinois economy for that. You know if you look at the world's economy forums report for last year, The Futures Of Jobs, they say exactly what you said; if the Governments do not actively intervene on one hand to accelerate the adoption of automation, but also on the other hand to partner with the private sector to rescale or upscale our workforce, they are going to see millions of jobs wiped off, and so we need to look at rescaling this workforce as quickly as we can, and at the same time, we should speed up the pace of automation, so that we can improve productivity and create new gap for us. The same thing is you wouldn't see that in the McKinsey Global Institute MGI's report

where they are saying seventy percent of the work that we are doing today is going to be automated in the next twenty-five years, so basically, the idea here is not just to blockchain but everything that you said, machine learning, AI, Robotics, ARBR, self-driving vehicles. The world is changing, and Illinois wants to lead that changing world, and I'm sure New Jersey wants to do the same.

Dave: Yeah absolutely, and the timing is right. I think New Jersey is certainly in a position where we are eager to modernize away from a variety of legacy platforms, and the deeper we delve into blockchain applications, the more we learn about migrating away from legacy applications and being able to leverage some of these new disruptive technologies like blockchain, so you know, a lot of what I am hearing is about the advantages from an economic perspective, from a security perspective, and a trust perspective, and certainly, I think you and I would agree the primary reason that we are so interested in blockchain applications in government is because it's an enabler of services for citizens and for our businesses, and I think that's where you and I as colleagues, as State CIO's, potentially have a lot of opportunities to collaborate at least in the thought leadership space but also potentially operational because when I talk to you, when I talk to other CIO's and Chief Digital Officers at the state level and at the major city level, there seems to be a strong appetite for identifying common business requirements and working together. Are there any low-hanging fruit use cases you think State CIO's and city CIO's, chief digital officers across the country, can collaborate on, either from an operational perspective, from a regulatory perspective?

Hardik: Sure no, so we actually work closely with NASCIO and published a white paper on blockchain. In fact, that white paper came out, I think, just about a week or two ago, and it's already gaining tremendous traction. Eric Sweden from NASCIO worked with our team and a couple of other states to pull that white paper together, and there is a lot of information in there already that talks about what we state CIOs have been thinking, what's the enterprise relevance of this. There are also the potential use cases, almost similar to what I laid out in the beginning around property financial management, public records, private records, quizzical asset keys, identity management. I mean, those are some of the things that we can look at. I think the key thing for state governments, we are a regulatory body, whether it is education, energy market, and everything else, and my appeal too, not just the state CIOs, but in general, the state leadership, including the elected officials, is to understand, we need to spend time in exploring this and understanding this so well that we regulate to innovate, as opposed to regulate to stifle this innovation, and if we try to regulate before we understand it, it is going to be, basically, we will probably kill an infant industry, and other states would obviously take advantage of, or even developing would be taken advantage. I mean, I'll tell you, this is poised to disrupt, but it is basically, obviously in our hand to better use it as an opportunity or a threat or come out as a victor or a victim. Those are the kind of things that I'll always be very mindful of, and speak with the Governor, speak with the agency leaders, speak with the legislature, and make sure that we are kind of moving together.

Dave: Absolutely, regulate to innovate, those are words that I think many CIOs, and potentially legislators across the country, would agree with. That's a great note, I think, to leave the conversation on. Hardik Bhatt is the state CIO and Chief Digital Officer of Illinois. It's been a real pleasure talking to you Hardik. There is clearly a lot of opportunity here, a lot of mutual interest across state lines, and I look forward to continuing the conversation.

Hardik: Thank you very much, David. It's been a pleasure speaking with you. It's an exciting time, as you know. Everything is coming together, whether it is IOT, analytics, and AI; or IOT and blockchain. I am having a blast. I am sure you are having a blast as well, and I feel my career, to this point, is all coming together. It's a great time.

Dave: Excellent. Well, we look forward to continuing the conversation. We'd love to have you back on TechNJ soon. We'll check back in for an update in a couple of months.

Hardik: Thanks, David.

John: That was Dave Weinstein, the CIO of New Jersey and Hardik Bhatt, the CIO of Illinois. I'd like to thank them for their insights, both into blockchain technology and the concerns and challenges they face as the tech leaders of their respective states. That'll do it for today's episode. Do you like what you hear? Do you have questions or comments you'd like to send us? Send us an email at Podcast@tech.nj.gov. For TechNJ, I'm John Silvestri. Thanks for joining us today.