



Questions from participants

Webinar:



The State of Illinois Blockchain Initiative

June 22, 2017

Sponsored by the NASCIO Enterprise Architecture & Governance Committee

Questions (Q) and Responses (R)

Q1. When you talk about Blockchain and its potential disruptive impact on the future computing models who do you believe will benefit from this disruption? Specifically, what new business segments do you believe will emerge?

R1. This is certainly an interesting question. While the technology will be disruptive to major industries the new entrants and segments of technology we believe include trust brokers, transaction monitors and secured storage lockers for the critical information. It is also possible that the vast majority of the interoperability challenges in computing can be reduced and in many instances solved around payment transactions, electronic medical records and digital identities to name a few.

Q2. Government often gets a black eye and is viewed as slowing down innovation due to over regulation. Your discussion on Blockchain has been most informative but the concern

remains about Government's role. What specifically can Government at Fed and/or state level do to spur Blockchain adoption?

R2. We believe that the role of government is to enable the utilization of this new emerging technology segment. This includes a three-pronged approach;

1. Developing an Ecosystem for Growth and Collaboration
2. Modernizing Governance for a Distributed Economy
3. Integrating Services for a Highly Efficient Government

Q3. Are investors interested in Blockchain? What specific segments are getting the most funding today and what is the outlook going forward?

R3. Blockchain is clearly emerging. When subscribing to services like CoinDesk you get the continuous updates on the industry and investments being made. Since Blockchain is emerging and we are encouraging more and more entrepreneurs to enter and focus on this space it is funded with a lot of seed and angel funding while the bigger technology players are beginning to take notice and align their strategies to their platforms.

Q4. Cryptocurrency is very interesting. Do you believe that this type of currency can replace what countries currently use?

R4. This is a clear possibility. Initially there will be specific market segment usage that occurs but many countries are beginning to consider this as the approach for the future.

Q5. What ROI has been seen for some of the early adopters of using Blockchain?

R5. We expect to have a full view of the ROI as we complete our use initial set of (5) cases/proof of concepts that we are focused on. It is expected that ROI will be strong as transaction fees are reduced, transactions execution is more trusted, paper is removed and processes are improved.

Q6. So this would apply to one electronic health record with specialists posting to one shared record at different POS?

R6. Yes. We do believe that the electronic health record (EHR) / electronic medical record (EMR) is one of the major areas that will be improved with the utilization of a Blockchain type

of approach. This is an intriguing space that has yet to be solved due to lack of interoperability from the healthcare industry.

Q7. I'm curious if State and Local Gov'ts will look to use public blockchains or private blockchains.

R7. We expect that both public and private blockchains will be utilized in the future state. The initial proof of concepts are working to test out both and better "future map" their perspective roles in secured transaction computing.

Q8. Could blockchain be used for secure online voting?

R8. Yes. Absolutely. To date successes have occurred in other countries in this area.

Response from other participant:

There are a few initiatives/POC that have start-ups testing various aspects of voting. For example, the Rock and Roll Hall of Fame, but also in a political context as well.

Q9. Does the State of Illinois see this integrating with the federal government, and at what adoption rate in terms of timelines?

R9. Yes we do believe this will be important and in the near term where state to Fed transaction submission and proof of service delivery can be done seamlessly to improve with reimbursement (CMS, DHS and other large funding agencies). We also believe that it is a way to improve the process of getting awarded patents, trademarks, FDA approval et al.

Q10. What is the URL for the whitepaper?

R10. <https://www.nascio.org/Publications/ArtMID/485/ArticleID/496/Blockchains-Moving-Digital-Government-Forward-in-the-States>

Q11. Is this webinar being recorded?

R11. Yes. It will be available on the NASCIO website here:
<https://www.nascio.org/Publications/PID/485/mcat/968/ev/1/TagID/3/TagName/Webinar>

Q12. I would like to hear of some non-financial use cases.

R12. The webinar covered several non-financial use cases including voting, healthcare record, property deed recording, academic credentialing, energy credit marketplace and vital records.

Q13. Have you seen an influx of high paying jobs to Illinois since the state decided to actively pursue this blossoming industry?

R13. While it is still early the incubator, innovation hubs and co-working spaces do now have Blockchain working centers and focus areas in addition Illinois recently launched a month long Blockchain hackathon which is attracting a lot of interest inside and outside of the state. More can be found at: <https://www.cryptocoinsnews.com/illinois-state-sponsored-month-long-blockchain-hackathon-horizon>

Q14. Given the trust and value proposition, do you see this as a fraud deterrent in delivering health and human services?

R14. Absolutely HHS will be a major benefactor of this type of technology and it is our belief that healthcare fraud can significantly be reduced which is extremely important to our overall healthcare system and being able to provide more of the right care at the right time for our citizens. Think of Provider Networks Validation, Reimbursements, Electronic Visit Verification and the emergence of a true “citizen owned” personal health record.

Q15. Is there any international consortium that develops standards for blockchain technology?

R15. Yes. See answer below. Also note participation by WC3 and the Object Management Group.

Response from participant:

- *There are many international blockchain consortiums that are pursuing use cases. R3, Enterprise Ethereum Alliance.*
- *Hyperledger is working with IBM and the Linux Foundation.*

- *See report on standards:*
http://www.standards.org.au/OurOrganisation/News/Documents/Roadmap_for_Blockchain_Standards_report.pdf

Q16. How do you validate and then trust the blockchain technology vendor/owners?

R16.

We do expect external parties and standards bodies to begin to get involved as the industry evolves. This includes the importance of regulation and guidelines internationally around cryptocurrency. Also similar to mHealth we would expect for someone like the FDA to provide oversight. This is still emerging...

Q17. Can you share the slides?

R17. Slides and the Q&A will be distributed to all registrants.

Q18. There are huge implications and many paths that an organization could travel down to create efficiencies through blockchain. What use case is Illinois pursuing most actively and what progress has been made thus far towards ultimate implementation?

R18. We have the 5 use cases that we are using to prove out the technology. Participation from major industry partners and consortiums are speeding this along. Early successes have occurred and true automation and redesign of core processes continues due to the power of this technology. We do expect to move forward with a subset of the use case pilots into sustained enterprise usage in 2018 with the anticipation that the platform and solution segments for Blockchain and distributed ledger technology that are under development come on line in that time.

Q19. (comment) There is a large interest in Privacy of citizen's PII data, for example civic.com, and there is also a lot of interest in transparent voting using Block chain.

R19. Yes. The Voting successes in other countries has proven that this can work. On the PII and Citizen data this will fundamentally change identity and help reduce spoofing and identity theft going forward.

Q20. (comment) I would think that identity management would be the low hanging fruit for an initial use case for blockchains, given the challenges governments face with identity theft and securing data.

R20. Agree with the comments inline below.

Response from participant:

- *Definitely has some of the largest up-side. Then it is a matter of getting other major societal institutions to integrate with that system.*
- *Imagine voter registration databases could protect PII.*
- *Federated ID management is really challenging. However check out the Canadian Provinces initiative with SecureKey due for POC release in July/Aug. You can also monitor the INDY initiative in the Hyperledger Foundation project set.*
- <https://followmyvote.com> *for a conceptual voting transparency technique.*

Q21. Curious how government entities, even Illinois, plan to skill up their tech workforce to be ready and stay up to date with Blockchain?

R21.

We are partnering with the Blockchain Education Network (BEN) and working with universities and community college programs across the state.

Q22. (Comment) IOTA.ORG is a microtransaction approach, specifically allowing devices to do micro transactions.

R22. Yes. When looking at Blockchain and distributed ledger technologies the micro payment, micro transaction and micro identity space becomes more relevant. Can help in many areas especially in service delivery and payments scenarios.

Q23. How about this for a use case: a clearinghouse for benefits recipients of federally funded programs across state lines.

In this scenario, you can't get food stamps in IL if you are registered to get them in another state.

R23. Amen! We need to do this within state where it is challenging to cross check and understand if citizens are getting the appropriate services or in some cases too many

services. Across state lines is even more intriguing and cross country makes our heart beat faster. It is clear that transaction validity enabled with this technology will reduce fraud and abuse and hopefully shrink the necessary overall size of government helping reduce the tax burden on workers and businesses.

Q24. Which use case is closest to moving from "pilot" to "fully implemented"?

R24. We have 5 that are all on similar paths. The Property Deed Management, Healthcare Provider Network and Vital Records pilots feel like they are in the lead but we have 5 teams with 5 vendors with 5 different solutions on 5 different platforms that we are testing out...so we will see.

Q25. Is there a portal for the Illinois Blockchain Initiative where I could learn more and stay up to date on developments in Illinois?

R25. Yes. You can google Illinois Blockchain Initiative and find several sources from NASCIO, to the Hackathon, to the Procurement Bulletins to the Illinois Department of Innovation & Technology site to the Slack channels that exist for this initiative.

Comments from participants:

- Very excellent information!
- Thank you so much for an excellent briefing today!
- Your work is pathbreaking
- Thank you - great presentation
- Love your leadership Illinois! can't wait for the hackathon!

Additional questions or comments:

Eric Sweden MSIH MBA CGCIO™
Program Director, Enterprise Architecture &
Governance
National Association of State Chief Information
Officers (NASCIO)
859.514.9189 |
esweden@nascio.org |
www.nascio.org

Mike Wons
Chief Technology Officer
State of Illinois
mike.wons@Illinois.gov

Jennifer O'Rourke Blockchain Business Liaison and Deputy Director Office of Entrepreneurship, Innovation & Technology Illinois Department of Commerce jennifer.orourke@Illinois.gov	Cab Morris Deputy Director of Strategy and Operational Performance Illinois Department of Financial and Professional Regulation richard.morris@Illinois.gov
--	---