TechNJ Podcast Episode 1 Round 2 Transcript:

JS: Welcome to TechNJ. I'm your host, John Silvestri. Thank you for joining us on our first show. Each month we will be bringing you topics about technology and its role in government. For today's show, we'll get to spend time with the Chief Technology Officer of New Jersey, and ask him some questions regarding tech's role in running New Jersey's government. Dave Weinstein is the CTO of the state of New Jersey, grew up here locally in Westfield New Jersey. He has worked with US Cyber command, and has been described by Forbes as one of the top twenty cyber policy experts to follow. Thank you for taking the time to talk to us, Dave…

DW: Thank you John. Pleasure to be here.

JS: It's great to have you. Just to open it up, what is technology's role in government, and where do you see it going in the next five to ten years?

DW: Sure, so I think technology's role in government is changing today at a more rapid pace than it has in the last ten to fifteen years, especially with the advent of cloud computing, of artificial intelligence, machine learning, which we will talk about more. But increasingly so, governments and the agencies of government cannot perform their mission, cannot deliver services to their constituencies without information technology. Increasingly so, networked information technology. So the internet of things is relevant here in terms of being a new capability that governments are leveraging in order to interact with citizens. So the role of government as it relates to technology is going to be less and less about providing that technology necessarily and it's going to be more about managing that technology and brokering the use of that technology. So here at OIT, we have a statutory obligation to provide and maintain the IT infrastructure for the executive branch of government. We do so in order to lessen the burden on departments and agencies as it relates to some of those core competencies around IT infrastructure. So as IT services become more like utilities, particularly in the compute, storage and network domains, agencies of government will be outsourcing those more and more, whether they're outsourcing it to a central IT organization like OIT, or to a commercial vendor or third party. So, as technology becomes more and more critical to the delivery of services, agencies are going to be doing less and less of the infrastructure piece, more and more of the application development in the future. And they're going to be leveraging new technologies to be able to develop applications and systems. And it's going to need to be quicker, right? It's going to need to occur at a pace that citizens are demanding, and that's where the biggest challenge is for governments, which tend to operate a little more slowly than the private sector will be in the next ten to fifteen years.

JS: You've mentioned some of the systems in your answer; automation, AI, and the like… how is government going to adapt to use these new technologies?

DW: I think that remains to be seen. The unique thing about government is there's so many different use cases, right? Within the executive branch of New Jersey State Government, we have agencies that specialize in human services, in health care, in motor vehicles and transportation, in financial services, and accounting… so there's so many different business use cases to pilot and ultimately deploy new technologies for. Artificial intelligence is something that governments are just starting to wrap their heads around. The more near-term innovation is cloud computing, and I think that's an area where you will see governments, like corporations,

taking a hybrid approach, right? So there'll always be a demand for on premise infrastructure, but increasingly so, just as the private sector is turning to public cloud environments, governments will be turning to public cloud environments. And many of the security and privacy concerns that have deterred governments from moving into this space over the last five years have largely been addressed by industry. So I think you'll see hybrid adoption of cloud computing. I mean, at the end of the day, what is the cloud? The cloud is a fancy way of saying, to quote the incoming White House cyber czar, as "somebody else's computer". Government agencies are recognizing that that "somebody else" is usually better at managing that computer than you are, typically because that somebody else considers it a core competency and they've invested in resources such that they can develop scalability and economies of scale. So governments, small and large, federated, centralized, are starting to recognize that. Here at OIT, we're building our own private cloud, recognizing that agencies will be looking for all the benefits of the cloud, but they'll also want their data to be hosted locally, on state-owned infrastructure, and managed by state employees.

JS: What disruptive technologies do you have your eye on? What's going to change the way government does business?

DW: A couple things… I think AI is really going to change the way government does business. So, automation and artificial intelligence, both of which are inextricably linked, but also at times mutually exclusive. So beginning with automation, and this is also tied to machine learning technology, automation over time, and I'm talking probably ten, fifteen, twenty years, is going to A. shrink the size of government, and B. change the type of IT functions that are performed by government employees. So, lots of tasks, and there was a really interesting report published by the White House right before the beginning of 2017, detailing the different tasks that in the next five, ten, fifteen years, will be automated. And that will shift the workforce towards functions and tasks that are more about managing automation, managing machine learning systems, and ultimately managing AI platforms, artificial intelligence platforms. There will be a little bit of a shift in the size of government, or I should say there will be a downsizing over time, and the size of the IT workforce, but there will be a premium for skills that are related to managing these new disruptive forces of the IT community, and those will mostly be based on automation and artificial intelligence. So today, we have zero AI developers at OIT. In ten years, we'll need dozens of AI developers. And we'll need people who can manage those AI developers, and we'll need policies centered around the use of AI. You know, one of the really interesting ideas out there right now that I'm considering is the role of a chief artificial intelligence officer.

JS: CAIO?

DW: CAIO. Somebody who can really start to wrap their head around what this new discipline looks like in government and how it can add value to the taxpayers, but we're still on the beach at Kittyhawk, as it relates to AI in government. There's a lot of really interesting dialogue, but it's going to require some vetted strategy and some really solid use cases as well as supporting resources to get off the ground.

JS: How is the State of New Jersey going to partner with outside organization and the tech industry at large in the era of decentralized cloud computing?

DW: Yeah, so we can't do our mission alone. So if our mission is to provide and maintain the IT infrastructure for the executive branch, inevitably there needs to be a fusion of public and

private sector resources. A public private partnership, if you will, to deliver those services in a manner that's secure, efficient and scalable across our government enterprise. So there's a natural, symbiotic relationship between the state and the vendor community as it relates to some of the core infrastructure and platforms associated with our services here at OIT. But I think there's also a partnership that extends beyond just the hardware and software. And this is one that in New Jersey we've been trying to cultivate for some time, which is engaging industry on matters of thought leadership to figure out where that synergy resides between the public sector and the private sector. It's not just a financial transaction or a procurement to deliver a service, but it's also about finding out what core competencies government offers in the IT space, what core competencies industry offers in the IT space. We see ourselves as a healthy force in the market just by being present, because we stimulate competition, but there needs to be a transaction of not just dollars and cents, but ideas that occurs between government and industry. In New Jersey, we are fortunate to have some key players in the IT space domiciled here in New Jersey. Whether it's major IT manufacturers, whether it's internet service providers, software companies, budding tech industries in Jersey City and Hoboken… so OIT as the state's enterprise-class information technology organization has an obligation to be forward-leaning in terms of engaging that community so that we can all develop better products for our customers.

JS: Sort of a think globally act locally?

DW: There you go!

JS: Alright! Well, is there anything else you'd like to add Dave before we get out of here?

DW: No, I think this is great! I'm excited to tune in to the podcast and subscribe, and I look forward to a robust dialogue moving forward.

JS: Absolutely. Well thank you for joining us here on TechNJ today Dave, appreciate it, and hope to have you on again soon.

DW: Thank you.

JS: That's going to do it for today's show, but make sure you subscribe to our podcast. In the coming months, we're going to hit a range of topics, including bug bounties, blockchain, IOT and wearable devices, agile/waterfall development, and much, much more. Do you have any questions that you'd like us to answer, or perhaps you want to comment on something you heard on today's podcast? Email us at podcast@tech.nj.gov. Check out OIT's website at tech.nj.gov, and follow us on twitter @NJOIT. That's been our show, I'm John Silvestri for TechNJ, where technology meets public service.