



CP: Dave - This past year you had originally labeled 2017 the year of disruption. How successful were these disruptions?

DW: Craig, thanks for having me - it's good to be back on the podcast. I think we've been pretty successful this year as it relates to what we set out to accomplish, right? And when I talked about the year of disruption earlier in the year, I got a lot of odd looks. People were kind of like, "Wait - we don't want to disrupt too much, right?" But there's a positive connotation associated with that phrase. It's often used in in tech circles, and it's really about revising the status quo in pursuit of some longer-term strategic goal. And for us, that longer-term strategic goal is a more secure, efficient, and reliable IT infrastructure that can serve as the platform for all state services across Trenton and throughout the state. And in that respect, I think we were very successful. When the governor issued Executive Order 225 back in June, and that kick-started a process not only at OIT but across the Executive Branch to identify those functions that should be centralized, as well as those functions that should be decentralized so that we can reach that end state. And we've accomplished a lot in that respect. OIT has welcomed nearly a hundred new employees since the issuance of Executive Order 225 - all IT Infrastructure employees who specialize in things like server administration, in networking off at the Y level, and the a local area network administration function. And likewise, we've taken the application development function and we move that closer to the business so, as opposed to a model in which agencies outsource their application development to OIT, we've brought that in-house at the agencies. So, when business objectives change, when requirements change, the developers can be close to those changes and they can adapt in a way that is commensurate with the demands of the end user at the end of the day. So, change can be difficult at times, it's certainly new for the state of New Jersey, but it's been incredibly important for us if we're to achieve our longer-term objectives.

CP: With the streamlining, if you want to call it that, how are the departments received this? Are they happy with the fact that now they have the hands-on with their programming staff right there?

DW: Yeah, so the feedback I've received has been very positive in that respect. I mean, put yourself in their shoes, right? You're a business, and in some case you're a hundred million dollar business, maybe an over billion dollar business like some of our executive branch agencies, and increasingly so your constituents are consuming services online through mobile applications, through websites. That puts a lot of demand on the programmers, on the development community, and the need for changes on a more frequent basis is occurring. So they, the agencies, now have teams of developers under their direct management and supervision, who can be tasked in order to meet the demands of the constituency. The other benefit to this is that the agencies now are gaining a better understanding of what it means to develop and deploy applications. It used to be this kind of function that was performed in a far away land over at OIT, and it's important that executive management at the agencies, even if they're not technical, even if they're not in the information technology space, that they understand what goes into designing, developing, and ultimately deploying an application. This

is going to be really critical as we start to modernize a lot of these legacy applications that are owned and maintained by the agencies.

CP: In such a short period of time, you really accomplished a lot moving forward with our technology for our state which is great, and I compliment you on that.

DW: Thanks!

CP: As we move into 2018, as the year of self-disruption, do you see more opportunities being created?

DW: Absolutely - so we got to keep the momentum going and we need to build on the progress we've made over the last year-and-a-half but particularly over the last 6 months which has been to kind of stage the executive branch for in-earnest a comprehensive digital transformation. And what I mean by that is now that we have IT functions aligned in accordance with best practices, keep in mind we're very large IT Enterprise, so we own over billion dollars in IT assets across the state, we have individual departments but at the end of day we're all one entity and that is the state of New Jersey. So, we've taken steps to now operate in that context, but the key over the next 12 months and beyond is that we maintain momentum, and that we build on the functional alignment that has occurred over the last 6 months. And there's going to be emphasis on 2 major pillars - one is on the application side, that agencies now take ownership of this function. And with that comes the responsibility for modernizing their application portfolio. Not only to improve the user experience, but also from a technology perspective to make sure that the applications are developed in a programming language that is sustainable over the long term. And, likewise, portable so that we can host these applications on modern infrastructure that OIT will be providing. The other side of that coin though is the infrastructure strategy for the state of New Jersey. And now that we have all the infrastructure assets and supporting staff under OIT's management, it's incumbent upon us to begin consolidating that infrastructure into a centralized data center for print or the cloud, right? So, OIT has been posturing over the last year, and will move more aggressively in this direction next year, to operate very much like a commercial cloud provider. To provide infrastructure-as-a-service to provide platform-as-a-service for a specific set of customers, in this case executive branch agencies. So when we talked to... when we talk to our customers, the departments and agencies of the executive branch, we expect them to treat us just as if we're another third party vendor, much like a cloud provider. Our operating model is going to mimic that of our commercial counterparts. But we also need to recognize that there are legitimate business cases for agencies to leverage the commercial Cloud moving forward. Not everything needs to be posted in an on-premise environment here in the state. We're absolutely going to take a hybrid approach to that strategy.

CP: You mentioned the cloud, and the cloud has been a technology that has shaped 2017 and prior. As we move forward going into 2018, what tech trends do you see shaping technology in the state, in the country as we're moving forward?

DW: Yeah - So I think cloud is going to continue to be a big player. What's interesting about cloud computing as a field in general is that it's now beginning to integrate other emerging technology disciplines, particularly artificial intelligence and machine learning. So I will be looking for opportunities in the new year to become an early adopter as a public sector entity of artificial intelligence and machine learning technology. I think we fail to do so at our own peril. Given the resource constraints both on the physical and human capital side, A.I. can be a major force multiplier for governments all across the country, but at the state level. So we'll be looking to integrate A.I. into our cloud computing business model, so that we can offer not just a level of automation, but a level of smart automation for customers who are going to be increasingly consuming these services without the use of humans or other intermediaries. So I'll be looking towards that.

CP: With that focus with A.I. and such, I know you also have a background in cyber-security. Do you see New Jersey embracing blockchain?

DW: So that's a great question - I'll address blockchain and cybersecurity in general in kind of 1 answer... so topic of cybersecurity is near and dear to my heart because of my experience in the field. It without a doubt needs to over arch everything we do from an infrastructure perspective but also from the development perspective. Earlier this year, we hosted the state's first ever New Jersey developers conference and one of the big themes there was secure application development. So we're going to continue to push security in the application side. We're also going to push it on the infrastructure side. It will be embedded into every service that we offer, right? Not as an add-on feature necessarily, but part of the package. That's a big theme internally that we've been harping on over the last year, and I'm hoping in the new year that we continue to do that, because we need to, right? Governments across the country are waking up to the reality that we are very attractive targets for bad guys in cyberspace. They're not just going after Fortune 50 companies or the federal government, they're going after state governments, local governments as well. So, we need to be on alert and we need to take ownership of the issue. There are a number of interesting emerging technologies in the cybersecurity space, one of which is blockchain, and a lot of folks talk about blockchain less in the context of pure traditional cybersecurity and more in the context of trust, which is an increasingly prevalent theme in the security spacing in general, that is creating a level of trust as it relates to digital transactions be they between users or institutions. And I think there's a lot of promise as it relates to the blockchain, and enhancing digital trust between users and institutions for transactions. I also think there's really interesting use cases for government as it relates to blockchain. The question is, is government ready for the blockchain yet, and this I think gets back to our opening discussion about disruption. When you talk about disruption, typically you're pushing something that not everyone is quite ready for yet, but you're doing it because the upside is there. So I think we're still evaluating blockchain along those lines, but so far it's been promising.

CP: And when you speak about that, that embracing of change, and sometimes people are reluctant to change...

DW: Sure.

CP: ...But your IT staff... As you see 2018 coming, how do you see their roles changing, and the need for softer skill sets... Where do you see that going?

DW: Yeah.

CP: Any type of training with that?

DW: Yeah, a lot of training I think it's going to be necessary in the future because the skill sets required to be an IT service provider in this decade and in the next decade are a lot different than they were ten years ago. To your point, there are a lot more soft skills required and slightly different hard skills if you will. One of the areas that I'm interested in training our folks in is artificial intelligence, right? There is going to be a huge demand not for the tasks that robots will be providing or performing in the future, but for how to manage how those tasks are performed by robots and another artificial intelligence tools. So the management of A.I. platforms, the development of a high platforms, those types of skills are going to be in demand if we're going to be able to move in that direction.

CP: How do you see all of that trickling down to the citizens we serve for the state of New Jersey?

DW: Yeah, well this is all about, at the end of the day, improving services for the citizens of New Jersey. And i've talked a fair amount about this, the relationship between citizens and their government is increasingly a virtual one. Fifty years ago it was almost entirely face-to-face, human, maybe involving written letters and and things of that nature, but today, and I think this is a positive development, it is increasingly, and almost exclusively for some services, virtual. That's a good thing because that means that citizens can get services better, quicker, faster. But the demand for those services, and new services, is through the roof, and government has to keep up with that. So for us to keep up with that, and and maintain a level of service that our citizens are demanding, we can't wait 10 years, 15 years, to adopt a technology that, for example, the private sector has adopted 10-15 years earlier. We need to be closer to that... that innovation curve, and be willing to take a leap so to speak as it relates to being early adopters.

CP: Well that all sounds really exciting! As we go in to 2018, and speaking of that, you yourself... what kind of New Year's resolutions do you have? I know for me it's always the same thing... I'd like to lose 20 pounds, but put a plate of cookies in front of me and that ends...

DW: (laughs) So, I have... I don't know if I'd call them resolutions... I've got some goals though for not just the IT community as a whole, but the users, the IT users of the executive branch which is pretty much all state employees, and that is said to drive adoption of what are some

relatively basic but critical services that we offer today, that could boost productivity across the workforce, enhance security and privacy as it relates to some of our most critical data and assets, and most importantly perhaps or just as importantly, break down some of the stove pipes in government and increase collaboration. There are a number of tools that we offer through our Cloud Connect suite, for example, suite of products to do just that, adoption of things like that are really low, they need to be elevated. So, I want to embark on a campaign of advocacy and evangelism if you will, so that IT directors and CIOs aren't the only ones who are using these tools, and that we grow our base to reach everyone in the Executive Branch. I also want to continue to grow awareness of basic cybersecurity hygiene that all state employees can adopt and implement. One of the big, best practices that we've been pushing for a while and will continue to push probably for the next five years is two-factor authentication. We're integrating this concept into nearly every product that we can, that we offer today so that we can prevent account compromises that are out of the entry point for many, if not most, malicious cyber operations that we witness. I want to drive adoption, I want to drive awareness not just within the IT Community, but across the board in the Executive Branch.

CP: I wish you much success in those goals...

DW: Thanks!

CP: ...and I also want to thank you for taking time out of your busy day to sit down and talk with us...

DW: My pleasure!

CP: ...on this podcast, ok? So...

DW: Thanks Craig!

CP: ...again, my name is Craig Parker, we've been sitting down chatting with Dave Weinstein, the Chief Technology Officer for the State of New Jersey. Thank you very much and everyone have a great day!

DW: Thanks Craig!