

Public Sector Future podcast

Episode 14

Guest: Joseph Courtesis

## PUBLIC SECTOR FUTURE podcast – Episode 14

**Olivia Neal [host]**

**Courtesis [guest]; Founding Director JCour-Consulting; IACP Crime Prevention Committee (volunteer); Former Commanding Officer Real Time Crime Center (NYPD)**

[Music]

**OLIVIA NEAL:** Hello, and welcome to Public Sector Future. This is a show for anyone who cares about using digital approaches in the public sector to deliver better outcomes.

I'm your host, Olivia Neal. Together, we explore stories from around the world, where public servants have been successful at delivering change. We meet the people behind the stories, hear their firsthand experiences and lessons learned.

Throughout the series, we discuss technology and trends as well as the cultural aspects of making change happen. I'm joined today by Joseph Courtesis. Joseph is a former inspector of one of the most well-known police forces in the world – the New York Police Department or the N.Y.P.D.

He retired from the N.Y.P.D. in 2020 after 27 years of service, including time as the commander of the 105<sup>th</sup>, 106<sup>th</sup> precincts, the Central Investigations Division, and the N.Y.P.D.'s Real-Time Crime Center.

We're going to talk today about his role in leading the Real-Time Crime Center, what this is, and how this has supported communities in New York and where there are lessons for other public sector organizations. Joseph, welcome to the show.

**JOSEPH COURTESIS:** Thank you. Thanks for having me, Olivia.

**OLIVIA NEAL:** Maybe we could start by giving people a little bit of context. I think everybody has a vision in their head when they think about New York and N.Y.P.D., but could you tell us a bit about what was life like as an inspector in the N.Y.P.D.? What was the scale of the challenges that you were facing?

**JOSEPH COURTESIS:** So, just to kind of put it into context, every law enforcement agency or paramilitary agency has a rank structure. So, in the N.Y.P.D., if you wanted to get promoted to sergeant, lieutenant, or captain, it would require a civil service exam— a competitive exam you would take against your peers.

Any rank above captain was an appointed position. At that point, to get promoted above the rank of captain, you usually had to go through running a precinct command at some point.

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Then, from there, the next rank above captain would be a deputy inspector, which would be equivalent to, say, the role of major in other departments. And then inspector, which I held, which is equivalent to a colonel. And then you have your chief ranks after that.

So As the inspector, there were a few different roles you will have. Now, you may be in a position where you work in a borough command overseeing those precinct commanders or work in a specialized unit, like I did in the Real-Time Crime Center.

**OLIVIA NEAL:** Right. Okay. For people who are not familiar with the American system, what type of size is a precinct? what type of number of people would live in a precinct?

**JOSEPH COURTESIS:** my second command was the 105<sup>th</sup> Precinct, and I had over 300 people or sworn officers assigned to that command. So, and that command spanned about 13 square miles. Doesn't seem large, but it is the largest geographical precinct in New York City.

**OLIVIA NEAL:** Right, okay, that's really helpful context. And so, you moved into one of these specialized unit type roles when you're talking about the Real-Time Crime Center. Could you tell us bit – just start off with just at a very high level, what is a Real-Time Crime Center? What are you aiming to do?

**JOSEPH COURTESIS:** So, a Real-Time Crime Center can mean different things to different agencies depending on the goal they're trying to achieve.

For the N.Y.P.D., we were really the first of its kind. We launched our Real-Time Crime Center in 2005, but the problem we were trying to solve was leveraging data. we were taking in data from multiple different data sources – millions upon millions of structured data information – that we were not leveraging efficiently. For example, Olivia, if I wanted to run you back in 2004, I would have had to run you through 35 different databases in order for me to get all the potential information we could have on you.

**JOSEPH COURTESIS:** So, we wanted to solve that problem. that's really how we got started with putting the Real-Time Crime Center together.

**OLIVIA NEAL:** And what types of data sources are you using? And I assume that this evolved over time, and you maybe started in 2005 when it first got set up, started with a small set of data sets, started bringing those together and that built up. But what types of data are you using?

**JOSEPH COURTESIS:** So, that's a great question because, you know, back in 2005, really, our mission was to leverage our own data. That data would come from the information we took from a summons or from a police accident report or a complaint report or an arrest report. You know, all of this information piles up day after day, week after week, year after year into a huge database of information.

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So, we wanted to leverage that information alone. But then, like you said, as the unit evolved and as you gain access to more sensitive data, we would start pulling in public databases, And then, open-source social media is rich with valuable, intelligent data and images. So, we would try to leverage that as well.

**OLIVIA NEAL:** And so, your team within the Real-Time Crime Center were responsible for providing the technology and the support to allow police officers across New York to be able to access and use that data more efficiently to support their communities better and to reach decisions more quickly?

**JOSEPH COURTESIS:** Yeah, exactly. Originally, the way it started off was we hired a company to come in and take all of that data and put it into one pool that we called our Crime Data Warehouse. Then, we built a search engine above that that allowed us to do some very complex queries above that data and leverage it that way.

So, when it first started, that Crime Data Warehouse – the data inside that Crime Data Warehouse was only accessible by members of the Real-Time Crime Center. We started a Real-Time Crime Center and we recruited some of the most talented investigators in our department to navigate through that.

What we were trying to do is we were trying to provide situational awareness to responding officers when they were responding to a major incident – say, a shooting, homicide, or a barricaded hostage situation. We wanted to let them know what was, you know, the history of that location, the 911 history, the 311 history, whether somebody was on parole or probation at that location that they were responding to. Is there a registered gun-holder there? Are there any people wanted for a violent crime that live at that location? Chronic domestic abuse history. I mean, I'm just trying to rattle this off the top of my head, but this would be some of the information we would try to provide to those responding officers prior to them responding to the scene.

**OLIVIA NEAL:** So, that would give the officers a better insight into what it – what's that situation I'm walking into?

**JOSEPH COURTESIS:** we've had a history of officers being killed walking into situations they had no idea what's inside – behind those doors walking in. If somebody is wanted for a murder inside that location.

**OLIVIA NEAL:** so that was at the kind of beginning of setting up the Real-Time Crime Center. You had a central team who were the kind of crack analysts and really top-end investigators who were able to provide this intelligence out to police officers. Is that still the same process that's in place now or has that evolved over time?

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**JOSEPH COURTESIS:** Yeah, that has evolved very much so. now, we pretty much scaled out that capability to 35,000 sworn officers— by giving them all smart phones. So now, when they're responding to a job, they don't need to call the Real-Time Crime Center. The Real-Time Crime Center doesn't need to contact them, they have that information right on their cell phone. So, that took a lot of duties and responsibilities away from the Real-Time Crime Center and, of course, the Real-Time Crime Center transitioned over to other investigative, supportive techniques

**OLIVIA NEAL:** That evolution of technology and of the capabilities of people running this, but probably mainly the evolution of technology has allowed that access to that data to be even more real time in the hands of the people who need it directly.

**JOSEPH COURTESIS:** Exactly. And, you know, I think our original concerns, and the reason why we had originally centralized the access to that data was because some of those datas came from sensitive data sources. and you don't want to give everybody access to everything with – you need to have some standards set and ensure that these queries are being done for bona fide law enforcement reasons.

So, once we were able to scale it, we were able to allow the officers, on a permission-based ability to access systems that are appropriate for their particular response. So, now those sensitive databases, the ones that we don't want to kind of give to everybody, they still have to come to the Real-Time Crime Center.

**OLIVIA NEAL:** That makes sense. And I was reading one article about the history of the Real-Time Crime Center, which talked about in 2005 back at the outset, the aim was to get better information to people's pagers. So— (laughter) it's taken some steps forward since then.

**JOSEPH COURTESIS:** Yeah, a couple, right? (Laughter.)

**OLIVIA NEAL:** as you see this evolve, how have you judged the success of this within the N.Y.P.D.? How did you know if this additional information was helpful officers to make better, more informed decisions? Did you get feedback which helped you judge that success?

**JOSEPH COURTESIS:** Yes, absolutely. I mean, you know, I always say a lot officers hate change. And when they embrace something so quickly, it lets you know it's something that they can use, it's accepted. I believe – I don't remember the statistics exactly, but I'm pretty sure we have somewhere around 17,000 queries a day from those apps on that cell phone. It's a clear indicator that it's used, it's used on a daily basis, and it's heavily relied on. the information is valuable and it's protecting them. I wish we could measure that. I wouldn't respond to a job nowadays without that type of situational awareness at my fingertips, and I'm glad that they have it.

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**OLIVIA NEAL:** And is this an approach that you see replicated across police forces in the U.S. or is N.Y.P.D. still one of the few police forces to have access to that type of capability?

**JOSEPH COURTESIS:** So, when I was still in the Real-Time Crime Center it was something that was definitely trying to be replicated. I would say probably on a weekly basis, two to three times a week, I had executives from other police agencies from all over the country and all over the world flying in to get a tour from me on how we're doing it, what we're doing, what technology we're using, how we're integrating it, and what our success is.

So, they were doing their due diligence. They were doing their homework and there may have been some issues with sticker shock with some smaller agencies.

**OLIVIA NEAL:** In terms of price?

**JOSEPH COURTESIS:** Yeah, exactly.

**OLIVIA NEAL:** Yeah. And it's interesting because when I think about this from a wider public service perspective as well, what you're talking about, that ability to take multiple sets of data, which you already have, bring them together, allow them to be used more efficiently to deliver outcomes and to benefit the people of your organization and of the community you serve, that seems so very transferrable not just to other police forces, but when I think about borders or customs. It's something that is very transferrable, and yet, we don't see a huge amount of around the world yet.

**JOSEPH COURTESIS:** You know, I helped a lot of agencies throughout the United States and even abroad. I did a lot of work with Australia – Victoria Police in New South Wales and many others when they were putting theirs together and they were constantly conferring back and forth.

But what I did notice is that not everybody is deploying this technology that same way. They're doing it the right way in that they're taking what is their issue in their community and how can they leverage the technology to support those issues? So, for example, I would say New Orleans may have a different condition – and New Orleans has a very sophisticated Real-Time Crime Center as does Charlotte-Mecklenburg in North Carolina. They address different issues. They may address some more traffic-related issues, where we were focused heavily on major crimes – shootings, homicides, barricaded like I mentioned – you know, major incidents.

**OLIVIA NEAL:** Thinking about how other organizations might want to replicate this type of approach, so, there was clearly a technology element to being able to bring that data together, to analyze it, to be able to share that out with officers. Were there also cultural aspects to making this change? Presumably, you were bringing together sets of data that were previously held by different parts of organizations, people feel ownership of those as you move to add more pieces of information into the puzzle.

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**JOSEPH COURTESIS:** I think you're referring to silos within an agency.

**OLIVIA NEAL:** Yes.

**JOSEPH COURTESIS:** Silos within an agency always exist, but when it comes to data, I don't believe our data was ever really siloed. The databases were available, the databases are there. It was pretty easy for us to kind of put all of that information into one bucket and navigate it that way.

Maybe where other issues may have come in is on that sensitive data. You know, for example, we would have access to FinCEN data. So FinCEN is –when you make a transaction in a bank in the States that where you're moving over \$10,000 in cash, you're required to prepare a report that's called a CTR – a currency transaction report. Just to kind of justify or explain where this money is coming from. Where is this cash coming from?

You find criminal elements may try to circumvent that by structuring deposits over a period of time. Banks are smart, they catch onto that, and they prepare a report that's called a SAR report – a suspicious activity report. The FinCEN database allows law enforcement to access those reports.

I'm not giving that access to everybody in the police department.

**OLIVIA NEAL:** Yeah.

**JOSEPH COURTESIS:** So, but people who do intense investigations may want access to that. I'll say, "Well, you can call us, and we'll get it for you." It's protected by the Banking Secrecy Act. We're giving permission to very sensitive data and we're going to protect that data as part of our agreement to have access to it. So, those are some of those important aspects when you're dealing with sensitive data is really the example or the point I'm trying to make.

**OLIVIA NEAL:** Yeah, so, that kind of – that links back to that point you were making about you can distribute access to certain parts of the information, but it has to be permissions based, it has to have those controls around it so that the right amount of data is there for the right people at the right time.

**JOSEPH COURTESIS:** Exactly.

But you know, one point I'm just going to get back, because it's on my mind and I've got to get it off my mind is, you know, since we scaled out the situational awareness component to those 35,000 officers and freed up a lot of time in the Real-Time Crime Center, that time went into

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really exploring a deeper dive into investigative technology and integrating a lot of that investigative technology into our current network.

For example, we would do a little more link analysis now,— we have access to all of these different databases, I can think of a million different sources of data. How do I find connections between those? And That's where link analysis comes in. That really takes up a lot of the time in the Real-Time Crime Center in leveraging that data and finding that connection.

For example, someone might want to know how Joe and Olivia are connected. And it could be deep in the weeds of that data that would never be found by the human eye. Link analysis can find that connection in three clicks, where we would never find it. That's powerful.

**OLIVIA NEAL:** At that extent, it's not even a case of saving officers' time, something like that would just never have been found. So, it's not a case of saying, like, we know we're saving someone a day's work, it's creating a new capability that didn't exist before.

**JOSEPH COURTESIS:** Exactly. And it's powerful. And, you know, there's other tools — specifically, some of the tools we use from Microsoft.

**OLIVIA NEAL:** Do you also work with other organizations or agencies outside of the police force in terms of using this data? Is it just used within the police force, or do you share it with other New York-based agencies, whether that be fire or ambulance or other elements of support?

**JOSEPH COURTESIS:** So, that's interesting. And for the most part, I'm going to say no as much as I want to say yes, you know? And it was a goal we were trying to achieve. So, I think having a system — maybe some common operating platform that would include fire and EMS would be quite helpful in our response plan.

**OLIVIA NEAL:** Yeah, so it's interesting. So, there's room still for that to kind of — that approach to grow and evolve.

**JOSEPH COURTESIS:** Oh, absolutely. That's where you have your silos.

**OLIVIA NEAL:** Yeah, and it's — but then really thinking about those kind of — those standards for the data protection and who is able to access what for what purposes.

**JOSEPH COURTESIS:** Exactly. And then, you know, you get into the politics of it, you get into the bureaucracy, and then clearly the data protection, which is probably the biggest concern. And if you can't articulate how the data is going to be protected, you're not going to get cooperation.

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**OLIVIA NEAL:** Yeah, I think that feels like a very common challenge that many countries are facing in all sorts of areas. If you were talking to somebody who said that, “I’m running a public sector organization, I want to be using my data better. I want to be joining it up, I want that real-time information that you folks have got,” how would you advise people to get started? Because I think that people have got 16 years of lessons that they can learn from here to leapfrog some of the pain that you’ve gone through.

**JOSEPH COURTESIS:** Yeah, I definitely can save a lot of pain. And, you want to learn from other people’s mistakes. That would be the first piece of advice. Ask me what went wrong, what did we do wrong and what would I do differently? Let’s start there. But more importantly, what is the problem you’re trying to solve? Your problem and my problem may be two different things, so you don’t want to replicate my system and then spend all of that money on that technology that is never going to get used because you don’t have the same issues

So, you have to evaluate the whole picture. Really, what are you trying to solve? What’s your budget, you know? Realistically, what’s your budget? And start – and then build out from there.

**OLIVIA NEAL:** And are there are ways that people can think about being creative with this, because I think you don’t want to just say, “Okay, you’re a smaller organization, therefore this is never going to happen to you because you don’t have the budget,” but maybe there’s ways that people in regions can come together to have combined approaches who have got shared objectives and look at ways at really kind of getting a bigger bang for their buck.

**JOSEPH COURTESIS:** Yeah, I really like that approach. I like the shared objectives approach. There are so many communities – smaller communities with smaller departments that border each other that share the same problems. So, there is an approach to that where it’s a bit of a force multiplier, almost like a fusion center, where everybody assigns a couple of people or one person at the very least from their agency to represent their interests in a bigger project.

**OLIVIA NEAL:** So, you said just now that people should ask you what you did that went wrong. So, I can’t let that opportunity go by. what did you do that went wrong? (Laughter.)

**JOSEPH COURTESIS:** As I said, I said, “Uh-oh, I have a feeling that’s going to come back to me.”

We may have purchased products that we had no use for and then we’re stuck in a contract for some period of time. You know when you go shopping and you can be impulsive, you see a shiny object.

**OLIVIA NEAL:** Yeah.

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**JOSEPH COURTESIS:** So, some of the mistakes that we made is – do not buy a product that solves one problem.

So, for example, and I'm going to knock on wood when I say this, but terrorist attacks are a real issue and they're scary. And I've lived through a few of them. But the reality of it is, in my 27 years, I've been involved in maybe four cases of terrorism directly. That's not a lot. You know? So, when you buy a product that solely protects you from terrorism, that's good to have. But the reality of it is, by the time the next terrorist attack happens, you haven't used that product at all. You don't even remember how to use it.

So, the product has to have multiple uses. You want to be able to use that on a daily basis and it can scale up to a level of a terrorist attack or an incident of that scale.

**OLIVIA NEAL:** I think that's a great one. You touched very briefly on procurement as well and working with suppliers and technology companies. Do you have any advice from the way that you've gone through procurements for other people?

**JOSEPH COURTESIS:** Absolutely. So, procurement could be very problematic. Specifically, you know, I don't know the bureaucracy of your internal agency. You may have to jump through a whole lot of hoops to get them to spend money. But before we even get to the writing of the check component, really, what are you looking for? And you want to make sure if you're going to fight your agency for the money that it's a product you really need.

So, you may want to do some type of proof of concept. Say, all right, let's test this out. Bring this in, let me run it through a few drills and then you'll know right away whether it's capable of doing it right now.

I like to do bake-offs. I get a couple of companies in that produce or have the same or similar type of a product and I'll test them out, say, for 30 days each on a similar work case – similar workload. I'll have a standard evaluation form. After that 30 days, we'll fill out an evaluation and then we'll do the next one. And then after maybe three or two or three different bake-offs, we'll sit down as a team, my unit, and evaluate which one meets our needs better with pricing and capability.

**OLIVIA NEAL:** I think those are really practical pieces. I like that part at the end as well – sitting down as a team to review those, to really understand what it is that meets your overall needs. I think those are very practical things that people can take away and think about in their own procurement processes.

**JOSEPH COURTESIS:** So, I've found, if these bake-offs have identified – you know, I remember looking at three products and two of the products literally just created more work for me.

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And you kind of want to find that in the bake-off and not find it after you've written them a check and you're committed to them for a year or two contract.

**OLIVIA NEAL:** So, one final question from me. We've talked a lot about the leading role that N.Y.P.D. have been playing in this space, but are there any countries or other police forces in the U.S. that you look to for your inspiration? Who do you think is leading the way in this type of space now or is it still N.Y.P.D.?

**JOSEPH COURTESIS:** Yeah, so, I'm probably the only one in the N.Y.P.D. that doesn't constantly pat myself on the back. (Laughter.) I say that tongue in cheek.

Since I retired, I've got to visit a whole lot of police departments. And I am so impressed with some of these other agencies, you know, particularly the Houston DPS, Arizona DPS, they have such great programs on how they leverage their technology.

So, if you for one second think you're the best, you fail to be able to ever improve upon yourself. So, you have to see what other people are doing. You have to get out there. There are other agencies that are really thinking out of the box – outside the box and getting some incredible work done.

**OLIVIA NEAL:** Thank you so much for sharing all of your insights with us today. It's been really, really interesting. And all the very best of luck in your future work with many other police forces around the country and the world.

**JOSEPH COURTESIS:** Well, thank you so much, Olivia. I really appreciate you having me on. I do have my own company, JCour Consulting. If anybody needs my assistance from here in on, you can reach me at [jcourconsulting.com](http://jcourconsulting.com). Thank you.

**OLIVIA NEAL:** Great. Thank you. Well, we'll put all the links to everything that we've talked about and how to get in touch with Joseph on our show page.

[Music]

**OLIVIA NEAL:** Thank you to our guest, Joseph Courtesis. And thank you to you for joining me today on Public Sector Future. Our goal is for you to learn something new and be inspired to think differently about your own digital transformation journey.

If you enjoyed today's episode and want to help others find it, please share, rate, and review the show. It really does help people find new shows like this one. And remember to listen and subscribe wherever you get your podcasts. Check out our show page for links to all of what was discussed today and visit us at [wwps.microsoft.com](http://wwps.microsoft.com).

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If you're interested in hearing more about the future of digital policing, check out our earlier episode with Darren Henstock (ph.) from Western Australia.

We encourage you to reach out, send your questions and feedback. You can find me on Twitter @livneal or on LinkedIn. Or you can e-mail us at [ask-ps@microsoft.com](mailto:ask-ps@microsoft.com).

Thank you and see you next time.

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