

## Cybersecurity in Education: Standards & Policies – Part 2



**Jared Heiner:** Hi everyone and welcome back, this is Jared Heiner bringing you PART TWO of this two-part series on Cybersecurity in Education with my guests, David Versocki and Don Harple from New York State Capital Region BOCES. If you missed PART ONE, you can head over to [AspireTransforms.com](https://AspireTransforms.com) under the Resources tab select Digital Aspirations Podcasts. Now let's pick up where we left off.

### Using Cybersecurity Analytics to Make Informed Decisions

**David Versocki:** So, the analytics are really important because when you look at somebody as large as the Capital Region BOCES and the Regional Information Center's footprint currently, as you mentioned earlier, we look at seven BOCES regions in northeast New York State here. It's not looking at one district, but it's about collecting and looking and analyzing what's going on across our broader network, which you see a couple of anomalies, one here, a couple here. And now, you can start to piece together some bad behavior.

And nobody even mentioned the relationships we have with the different law enforcement agencies. They're also doing some of the work. And not just response, not just reactive stuff. There's some watching of bad actors. And those other partnerships are huge, especially when we have the data here. And then, of course, listen, on your worst day, even with the protections you take, a bad day can happen. And so, when you have those logs, you can then use them forensically and make them available to investigators and things of that nature, which, you know, that's the unfortunate day that will occur somewhere for somebody. And it's the reactive aspect of it that is important there as well from the proactive part.

**Don Harple:** There's another dynamic that we're combating as well, in that districts are unique. Each one has their own principals and how they want to operate even though they might be using similar technologies and similar tools and whatnot. Because remember, their charge is instruction. And you have this situation that occurs. Well, it's a public entity and it is publicly funded. The taxpayers pay for

the school district and it's a local fund. So then, per district, you might have even a different stance on how their local posture is.

So, I'll give you a for instance: Some of them want to offer internet access to the public because they have wireless and it's just sitting there. Well, when you're not thinking about it in this fashion, that's actually a threat vector because now, you're introducing unknown, uncontrolled devices into your network. Well, the first question we're going to ask is, did you think about that? And did you think about what it takes to make sure that you're protecting your network against those uncontrolled, unmanaged devices that you just allowed to come through? And all too often, unfortunately, the answer has been, "Well, no. We didn't. But now we are. Thank you."

**DV:** And then, just remember, from RC, when we say that local network, 80 percent of the districts are on our network. And so, some of the things that we do at a central point helps in watching and limiting some of the exposures when those types of devices do come on. But they do introduce plain, simple, another egress point or ingress point for that.

## Cybersecurity Standards in Education

**JH:** And so, what's fascinating is that we've started this conversation, the two of you have so much to contribute, and it leads me again back to that idea, Dave, that you said, 'schools have a charge, and that charge is ultimately to educate'. And so, it really is, I think, imperative to say who can - I don't want to say hitch your wagon to, but partner with to be able to answer some of these questions whether its technology-based, analytics-based, or human behavior best practice based.

But I also know that inside the schools - and I've been on almost every side of this as you guys know - there's almost like this pick a political side or pick a football team. You get involved with a particular technology. And there's just this idea that, "I don't want to move away from that." So, if I'm interested as an IT director, my initial thought is going to be, "Gosh, they're going to gut me. I'm going to have to go all this, go here, go there, change all this stuff." Is that the reality? I mean, do I have to change much? Or is this something where you guys can come in and say, "Hey here's some offerings and here's our suggestions." What does that look like?

**DV:** Well, I think what you're getting at is standards, Jared. And the Regional Information Center in this particular case has tried to select best-of-breed solutions. And with that comes the business side of

working with some of those providers or those companies to figure out what's the best business case for us to present to our districts. So, yeah, in some ways you are limited a little bit in choice in certain areas.

Quite frankly, at the kind of local network level, we have some standards that we support but we actually don't care. It's the tools that are doing the protective layers that we do care about. What's your firewall type? There's a couple so we can support them, so we know how to ingest those into our data collection. There's currently one DNS layer product and one endpoint protection layer that we're promoting today. Could tomorrow introduce a second one? Maybe. But as soon as you get away from those standards, now you water down the business part of it, the world. Because anybody on the private side knows that volume is how -- created and repeatable processes. So, to some degree, yeah, Jared, when we work with districts that are in, let's say, a more comprehensive managed service as opposed to districts that they pick and choose a la carte what might fit their need, we're setting standards within those managed services district. So, we're going to take a chunk or subset of our overall environment, because we can set standards.

And as you mentioned earlier or Don mentioned, in New York State, every school district is its own locally-run, policy-driven entity. There is no county-based school system. We have state education but they're not setting standards for the state in that regard. So, it is left to us at a regional level. And then, to continue to just educate people on why these things were selected. It's not cloak-and-dagger. There's no Celestron and the Caymans where there's money going to. Don, you didn't open that account, did you?

**DH:** Well, I didn't get --

**DV:** Okay. Yeah. That's not a little tongue-in-cheek there, but our goal as a regional entity isn't to make money. Our goal is to provide services to help you do the business of running schools, as we said earlier. And -- is a way to make cost-effective repeatable sports.

**DH:** Well, let's be clear about this though. We've done a lot of research. We have spent a lot of time looking at what is out there and what's available. We've gone to different sets of experts, noncompeting type of experts who say, "Here's our opinion of what the landscape is and need to think about." And, basically, they all say the same thing when it comes to how you're going to do it. So, to get specifically to can you do your own thing, to a degree that it doesn't impact our ability to provide an effective, efficient service to you? Yes.

But when it comes to the platform and the toolset that we're doing right now, every MSSP that you go to - and we're not specifically an MSSP. We are a cooperative education service provider, but we're trying to, in some ways, morph into this bit of a managed security provider. And so, everyone you talk to says, "You have to pick a set of tools because you have to be good at that set of tools. You have to, basically in essence, double down on what that tool set means to you. Now, add to that the "I need somebody else to help us because we're not a 24 by 7 shop." So, we'll never have a full SOC. We're going to always be SOC-lite - that's how I like to refer to - because we go with the schools. We have a school day. So, our hours for being present are going to be then.

Well, what do you do in the rest of the time because the bad actors don't stop? Well, you have to have somebody else who can cover the clock for you. And this is where that becomes a very important part of this conversation because the toolset has to line up with your partner. So, in our case, we have a partner who can embrace the tools that we have, which is a great thing. And so, does that change tomorrow? I don't know. Maybe. But in reality, hopefully, it just gets better and more efficient and more effective.

**JH:** And it's interesting because when I was asking the question - and the responses speaks volumes, again, to the work that you folks have done - my question was more coming from the 'I'm an IT director and, let's say, I made an investment'. And, Dave, to your point, let's say, I'm within the standards-based technology sets that are out there. It sounds like there's really no change. I'm not going to be forced to have to go back and say this all needs to go away. As long as it's standards-based, you guys don't care.

Again, Don, to the point that you made that's excellent, we'd just have to be able to provide that service. And so, it sounds like you've done a lot of the work as your own entity to ensure that you're providing the best possible service. But I, as an IT director, who just went through a capital project last year and bought any of the top shelf things that might be out there, I'm most likely going to be okay. You're going to come and say, "Yeah. No. This is a relatively easy lift."

**DH:** Yeah. I mean, to a degree, Jared. And some of it, as you mentioned, I buy Infrastructure A, Infrastructure B largely-- irrelevant. Well, sometimes you find out you bought endpoint protection Products B instead of the one, A, that we have. Well, that's the hard part, right? Because we have to make sure that Product B, which were not at yet, can be ingested in a sustainable manner. And then, a lot of those event driven products will do similar things. But it's about us being knowledgeable enough to be able to help. And so, we can't get to water down with the product sets that we are going to go - I'll use this word again - standardized on. So, there's a discussion to be had, Jared.

## **Focus on the Outcome instead of the Product**

**JH:** But really, what it sounds like again is that the conversation really should never be about product when we're talking about the outcome that we're hoping to get. That's something where it sounds like you've done that work. I don't have to worry about that. I need to be focusing on instruction.

And it's interesting, the three of us have known each other now for a very long time and we all know when I stepped into an IT director role, I didn't know anything about IT. And even to this day, I now work in IT, but yet I'm sitting here listening, obviously, the amount of research and work that you folks have been doing is unparalleled in this industry. So, I think the greater purpose here is to say, "Gosh. I'm a school leader. I'm not sure what to do. I think I know what to do." But what does that outreach look like? If I pick up the phone and say, "Hey, Don. Hey, Dave. Help me out." What does that look like? How do we walk through this? How do we get started?

**DV:** Well, I mean, I think the way I typically have started our recent conversations is kind of the way we open the conversation. Here's the typical ways compromises have been had, at least what we've seen in pattern. And here are some of the things we're going to look at, what are you doing? What's your [inaudible] with education? It's not to scare somebody astray, but it's informed. Be informed about the risks that you have. And then, we can talk about the supports that are in place, whether you think you're mature and maybe the conversation goes into, "Well, the seven-assessment done," so that you can be checked. Maybe it is, "Hey, you don't have A, B, or C in place. Well, let's start with A and B now and get you to that point."

So, it depends on, I think, the maturity level of the organization, Jared, and the understanding at the leadership level that exists or doesn't exist. And that will drive where the conversation goes. So, it's always the first conversation that is the important one. And the best part about the position we're in is, we don't have to lead with a monetary goal we're trying to hit. We're here to try to educate so that you make the right decision for your organization. And then, we see where we fit.

**DH:** Well, I like to say, kind of like what Dave said, but maybe a little bit different framing. And it's more like this, if somebody calls and says, "Hey how can you help?" What do you need help with? We're not a sales agency. We're here to help you, so tell me where you need help. So, it's more about that bite-sized chunks of what makes sense. This is about, let's get your head around, like what Dave said, the risks. Tell me what keeps you up at night. That's a great conversation piece. What keeps you up at night? What are you concerned about?

And then, you have a conversation, and you talk about some of the threats and the risks that are out there. And then, you ask that question again and you say what keeps you up at night now? And it's interesting because as you open their eyes to truly what is out there and the number of bad actors who are really intent on taking what they have because of the money. It's --

**DV:** I think, Jared, part of that education and it depends on the makeup of the district, too, and what they have for their own supports. It's make sure you're talking to your own internal people about do we know everything that we're supposed to have. Do we have an inventory? Do we know where our data is going? Those are fundamental questions. Forget tools and forget services. Those are things that the leadership needs to be aware of.

And I think what we're finding is, we're getting put in front of leadership three different ways, typically. One is, there's a message we're trying to get out and the various ways that this organization is sharing information right through our leadership meetings through some of our downstream services that are at the program level we're sharing information. Two is, were responding to something, an event that happens. And we're having kind of the after-the-fact conversation. And those happen at different scales, by the way. It's not that it has to be out full-blown ransomware attack, but we're having it because there's an event that happened and people want to know more.

And then, I think, on the third side is the conversations happen because, as I mentioned, the parallel to the financial world is the risk assessment area, which is an emerging service that we have, the set of services we have as well. And those really bring up the business conversations. That's really where those get drawn out. And so, any one of those avenues, Jared, I would just say to people who are listening - and I don't care whether it's within our footprint, outside the footprint - pick up the phone, email, give us a call. Just let's have a conversation. And from there, plans can be made, or directions can be had. Really, it's a non-threatening conversation.

And the hardest part will be when you're sitting next to your internal people and, again, what was their focus? Education. They may not be aware of some of these things, and it's not their fault. It's time. It's limited resources.

## **Use Resources like Capital Region BOCES to Support Cybersecurity Strategies**

**JH:** One of the things that has really struck me and stuck out to me while we've had this conversation - again, I have already said it - it's just really how thorough the two of you have been. And, again, we look at education and there's so many things. We just got through a pandemic, as you guys probably know better than anyone else, changed everything. And yet here we are just diving into which is only scratching the surface in reality, cybersecurity and all the different pieces that go along with it.

And I'm just amazed at the resource you provide and your knowledge depth. And so, I guess I'm hearing you when you say just reach out. And so, I think that, ultimately, the message is that there's a tremendous resource inside the Capital Region BOCES, inside the NERIC, which is the program and the knowledge that you guys have.

And so, I think on that note, of all the conversations - I've done a number of these podcasts now - I think this is the most important one in the sense that it is the most pressing. And, really, there's a lot at stake. And so, I appreciate both of you guys coming on here, giving up some of your morning. I'm sure that you each have piles of emails now. But I think the message has been made. And, guys, thank you for doing the work that you do because it does mean so much to so many of those school districts out there. And for those that are out there that are interested, I think the point is just reach out and start the conversation. So, gentlemen - yeah. Please.

**DV:** Jared, if I could have one just closing comment, and Don and I really appreciate the acknowledgement, and BOCES does as well, that you're seeing the level of expertise. But, also, I think we are responsible for us to think that were the only ones thinking about things like this. I think there are statewide groups of people that are getting together talking about these things. Each region may approach them differently and, maybe, there are different maturity levels in their conversations.

But while this was focused on us, I think it's really important to acknowledge that our sister agencies, like ours, or local BOCES, or even school districts, might be more mature than others. So, I think let's just make sure that we take a second to acknowledge all of those that are taking those steps. And it's a journey. It's not a destination. This is going to be something that we're going to have to mature with --

**JH:** Yeah. And I think to that point, no matter where you are, what school, you are, just start the conversation, right? And to your point, there are - what is it? - 11 Regional Information Centers - 12.

**DV:** Twelve.

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**JH:** Just start the conversation and know that there are tremendous amounts of resources out there. But, again, I think that the work that you guys were chartered to do across the board, all the RICs and BOCES, they're so vital. And, again, thank you for coming on here and sharing a little bit about that. And, again, I appreciate you guys coming on. Thank you for giving up your morning.

And, in closing, I just like to say, for everyone who's listening, I appreciate you joining another lively episode of Aspirations in Education, sponsored by Cisco and, obviously, brought to you by the folks at Aspire. Thank you to the Capital Region BOCES and NERIC team for joining on and sharing your information. Dave and Don, thank you so much, guys.

**DV:** Thank you.

**DH:** Thank you. Have a great day.



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