

Privacy Sigma Riders Episode 9: Security: The Great Enabler. Who Knew?

Information security leadership from the CISO perspective

Host Michelle Dennedy discusses leadership and adaptable security as a business enabler with Steve Martino, Cisco's chief information security officer.

Michelle Dennedy: Not so long ago, data security was viewed as an inhibiting factor for business. Sure, it was necessary, but it really bogged down productivity and the desire for speed, mobility and efficiency. That's all changing. My next guest leads the charge in information security here at Cisco and for our global customers and partners. He's more popular than ever and you'll see why in a second. Stay tuned. I might even be able to get you his autograph. Cybersecurity. Data protection. Privacy. You like to stay ahead of the curve and listen to experts who are leading the way in deriving greater value from data with a more organized approach to data privacy. You're like us, just a few deviations past the norm. You are a Privacy Sigma Rider.

Hi everyone, Michelle Dennedy again, chief privacy officer at Cisco. Today, we welcome Steve Martino, the chief information security officer for Cisco. How are you, Steve?

Steve Martino: I'm great, Michelle. How are you?

Michelle Dennedy: I'm doing great.

Steve Martino: Awesome.

Michelle Dennedy: Steve and I are actually partners in crime prevention, but I'd like Steve to introduce himself. I'm going to stop calling him Steve as I'm looking at him having a normal conversation. Tell us a bit about yourself and the work that you're currently doing. What do you like about it? Where are your challenges?

Steve Martino: Sure. I am the chief information security officer at Cisco and that really is about securely enabling the business to do what the business needs to do at the speed the business needs to do it and there's a couple of things that I'm sure we'll talk about, but that's really my role in the company and that includes all of our IT systems that we use to run the business, but also, all of the clouds that we sell to our customers.

Michelle Dennedy: Yeah. I think the point that is often missed is, how enabling it is to have those assurances in place before you launch the product or service.

Steve Martino: Yep, absolutely. I think in the past, we always thought about security as an afterthought, something we bolt on at the end, a necessary evil versus an enabler and I think if we recast the whole concept into how do I securely enable the business to do what it needs to do, you start to think about it differently, both me as the practitioner, think about, "Well, what can I do to get

ahead of what the business needs and make it easier for them to do what they need to do, make it faster for them to do what they need to do, always in a secure way." I think the business can look at you differently and really start to look at that partnership between them and you as helping them get to where they need to do in a way that their customers trust them, that they aren't hampered by regulatory or policy issues and they can actually move at the speed they want to move. That's really the kind of mindset that I think today's security professionals need.

Michelle Dennedy: Yeah. It's a participation sport.

Steve Martino: Absolutely.

Michelle Dennedy: For sure. It's a sport, indeed. It's changing and I think it's interesting. We were talking last week getting ready for the show and we were musing on Moore's law, which told us that the number of transistors in an integrated circuit would double every two years, so think about the capacity and the cost would be halved and the interesting thing for me has always been that when Gordon Moore came up with this, "law," it was a business plan. He was a man with a plan and he had a business and that business was driven with resources, with guidance, to run a business that said, "We're going to double capacity and we're going to lower the cost of access."

Can we say that security is on a similar trajectory to really start to be integrated, like an integrated circuit, if you will? Can we say that today, security is also a part of a business plan for growth, rather than just an inhibitor or a cost or a drag on the business?

Steve Martino: Yep. Absolutely. I don't think I can do what Gordon Moore predicted in terms of making security twice as fast at half the cost.

Michelle Dennedy: It's a pretty high quality ticket item.

Steve Martino: Absolutely. I do think the sort of things we need to do as security practitioners and as business people has dramatically changed over the years and as each one changed, it allowed us to do things we couldn't do before and with that new enablement comes new risks and new obligations around how we protect our data, how we protect our systems. When they were all locked up in a data center and I had IBM terminals strung directly to them, I had to worry about locks on doors and windows. When everything is interconnected and I have 70 devices in my home that are interconnected and connecting to many, many different websites around the globe, I've got to think about those things very, very differently.

I think the opportunity here is to recast risk and talk about the risk of, you want to do this? These are the three, four, five, six things that you now need to worry about, doing that thing that you never did before. How do you want to handle that? Do you want to take on the risk? Do you want to mitigate the risk? Are your customers willing to allow you to take on that risk or not and what's your reputation? What's your contractual agreement? Those kinds of things.

When I first started, it was about controls and locks on doors and technology and today, it really is about a business risk discussion and what chances, what risks you want to take on and which ones you don't and that escalates all the way to upper management and to the board and the board's role in providing oversight to say, "You're taking on the right kind of business risk or too much business risk," and helping that external party to help you manage the appropriate risks

that you want to take. I think that's really the role of security in today's interconnected, digitized technology company.

Michelle Dennedy: I got to tell you, Steve. You're on a podcast about sigma riders. This is not a normal discussion for a normal CISO.

Steve Martino: Yeah.

Michelle Dennedy: Let's dig into this. I'm going to be a little bit Freudian here. Tell me about your jobs in security. You don't sound like a guy who has only been doing technical security his whole career. You talk a lot about business, so let's go back into the deep, dark past. He says he started at 20 years old. I think Steve has got a time machine under his desk. He still looks like he's 30. You haven't always been a security guy, and I'm putting air quotes that nobody can see right now, so tell us a little bit about that background and how it's lead you to this really integrated thought process of, even what is appropriate for board level. What's appropriate for business partnering? What's appropriate for a centralized security world? How did that all come to gel in your mind?

Steve Martino: Sure. I think it's still gelling because I think to be in today's technology world, to be a security practitioner today, you have to keep adapting and changing and evolving and if you're not excited about doing that, you're not enjoying doing that then go do something different, but I did start when I was 20. I was in a managing retail outfit selling suits and dresses and men's and women's clothing, I met a guy.

Michelle Dennedy: You're a technical guy, right? Not fashion design?

Steve Martino: Not fashion design. It was just one of those things you did early in your life and I met a guy and he asked me to come work for him at Xerox and that's how I got into the high technology world.

Michelle Dennedy: That's a pretty high pedigree for the technology world.

Steve Martino: Yeah. We were involved in office automation and networking in the late 70's, early 80's and brought that technology into being. I found very quickly, I liked to figure out how things work. Ever since I was a little kid, I did that, took clocks apart and radios and figured them out. Well, as I got into this technology thing, how did it work and how could I build it and do that and so I went from more of a customer facing to a SE role, to an engineering role, product management role and got involved with AI and expert systems in the late 80's.

Michelle Dennedy: And it's back again.

Steve Martino: It's back again, just what we can do, like so many things, we can do so much more today than we could back then. I remember \$100,000 AI workstations, individual workstations cost \$100,000 and they had a 300 megabyte disk, but that was real big horsepower back in the late 80's and so things have really evolved.

I got involved in Sun, Sun Microsystems and client server, did a couple of startups and so I've held sales' jobs, marketing jobs, product management jobs, COO jobs, engineering leader jobs, security jobs, IT jobs and I think for me, how that all comes together is, no matter what kind of issue I'm talking about with a business partner, I've had some touch, some rub against those

kinds of things, either being that person on the other side of the table or partnering with that person to achieve some goal from a business point of view, from a technology point of view and I think that's helped me understand and have empathy for what are the challenges they're trying to deal with? How are they thinking about them? How are they reacting to a message I might be giving? I think it helps me be more relevant and a better partner because I've tripped over some of those stones. I understand the choices they're trying to make and I can have a better dialogue with them to find the right solution that makes these balances that I've talked about.

Michelle Dennedy: Some of the things you are talking about, Steve, really resonate to me as some of the people who have been reacting to the podcast have said, "This is as much about leadership as it is technology," and what you're talking about and using words like, "Empathy," and understanding people's experience, how do you think people can go from deep technical knowledge to start to make that letting go happen? It's very, very difficult, in my experience, to not know every cause and word and the new piece of legislation. I have to trust my lawyer. It makes me crazy because I don't always agree with the interpretation. It must be similar in the technology world. How do you go from technical guy with a lot of experience to let go enough to be a leader, but also empathize even with the people coming up the ranks and nurturing them into leadership positions?

Steve Martino: You know, that's a great question. A couple of reactions. Number one, it doesn't happen overnight. You have to let go and let go and let go. I know you have children. I have adult children and the same thing happened there. When they're little, you run behind them. You put them on a bicycle, you run behind them and then you let them go and then you get them a big motorcycle and you don't run behind them anymore.

Michelle Dennedy: It's hard though. In my mind, I'm still running behind them.

Steve Martino: Absolutely. That's part of that evolution is realizing that they can do it on their own. They're capable and you can add different value to the discussion, to whatever you're working on and so I think in the early days, it's about letting something go a little bit by little bit and realizing you add value.

I think the other thing that really helped me is being thrown into the deep end of the pool as it were and you can't keep track of all the details. In today's world, that might be deep technology and some of the algorithms and machine learning technology, very hard to keep pace on that as an example and be relevant and also, you have to trust them because you can't get that involved. On the other hand, the pace of change and new things happening, you can't keep pace, so that's what I mean by being thrown in the deep end. When you realize your value add is A, knowing who to trust, knowing how to cultivate them, how to empower them, as a leader, I think that really is the art of being a great leader. It's something you nurture. You have to learn. You have to emulate others that you look at and say, "I want to be like that person. I see how they're doing that," and you do that and it has to be a conscious effort and something that you keep nurturing throughout your life.

My dad is 85. At 80, he stopped being on his last public company board and I was shocked. I said, "What are you doing?" He said, "You show me another public company with an 80-year-old on their board," but he is still learning and nurturing and doing all that at 85 and that's a lesson

that I think I didn't know I was emulating when I was young, that I now look at and say, "How can I do better?"

Michelle Dennedy: Yeah. It's amazing how you look back and whether it's your parent or your mentor and you realize, "God, you know, that guy was pretty smart." I had the same conversation with my dad this week. He's having all sorts of trouble with his eyes, but he's still having everyone read to him because he can't stop learning. It is just hard wired in some people and I think that's the other half of that leadership. One part is letting go, but the other part, I find, and this brings us back to the security as an enabler is, at a certain point, you develop a vision for the future as well, so you've learned those past tasks that got to where you are and then you are asked, and this is part of being in the deep end, to have a vision, to have a reason for your vision.

People are always asking me for proof of my vision and I say, "Well, it's in the future, so I have inferences, but here's the vision," and then I think you sell it to other people who are your partners and say, "This is the piece of the vision that interacts with your piece," and I think that goes to the next question I have, which is, digital disruption. Digital disruption.

Steve Martino: Say that ten times real fast.

Michelle Dennedy: You know, I can't even say it one time slowly. We never pick good buzzwords, like, Fred for digitization. Let's call it Fred. Digitization, digital disruption or transformation, top of mind for every customer, using our data, better, smarter, faster. Given all of the breaches and all the capabilities of the ransom where folks and all the bad guys out there, do we just throw up our hands and say, "Data is going to happen,"?

Steve Martino: Yeah. A lot of things in that question.

Michelle Dennedy: Of course. We're packing it all in.

Steve Martino: You're packing it in. I think, first of all, I am not a gloomy, doomy, cup half empty guy. I think we can solve these problems in a practical, economic way, but there are challenges. They're not going to be easy and I always approach these kinds of opportunities or challenges with what can we do? I think digitization is an evolution. If I look back at banking and the banking industry, they started years ago doing ATMs, and then came online banking and new services, on and on and on, and they've been on this digitization journey for a long time.

Fifty years ago, it was about the safes and the locks on the safe and the money in the vault and today, it's all about the electronics and the connections and those kinds of things and to me, that's a great, easy way to understand what digitization is, is that transition and with that comes the interconnectivity and the new services and new business models and ways that you can partner with different organizations and so as a security practitioner, if you're anticipating that and thinking about that, it's how do I put things in place that provide the right kind of protection in a scalable, automated way that somebody can just consume and that consuming of security as a service is a really different way for people to think about security, both practitioners as well as IT and developers, make it consumable. Make it something they can leverage and then you can go at the speed that they do.

Most important about this digitization is, how do we turn security into consumable services that allow us to invent new applications and new services that our business partners can deliver to their customers?

Michelle Dennedy: Yeah, it so resonates with me. I worked for a bank back in the 80's that was putting an ATM out and the discussions then were, this is outrageous. We are putting cash ...

Steve Martino: On the street corner.

Michelle Dennedy: On the street and it's going to be spitting out all over the place in gas stations and the worst, least secure places and yet, we trained consumers how to put a pin code in, how to carry a card. We limited the amount of cash that could be taken. We built new risk models back in the guts of the thing and I feel like that's where we're going with this digitization. It is the new currency and we just have to figure out how to harness it.

Steve Martino: I love one concept that I want to build off of what you just said is, all of that was, what I'll call adaptable security. We figured out where the risks were. We tried something. We found, well, we could take more money than we wanted and those kinds of things, and you adapted and I think in today's world, security that can be really, really adaptable, really fast to changes and if we build it that way, then we can adapt it to whatever the situation is and while there is issue or a loss, it's about finding that issue as quickly as you can and doing something about it.

I call it time to detect, time to contain. I think too often, we approach security as, I put a lock on the door, I put a padlock on the inside or whatever and now I'm all done. Security isn't, in a digitized world, isn't like that. A, yes, I've got to put locks on doors and make sure things are secure, but I also have to assume somebody is going to make a mistake. A user is going to click on something. An admin is going to leach something open because they're rushed and they're human. Dedicated advisories have motivation to come in and so if I'm not always looking for how did one of these things go wrong that I thought shouldn't happen and be able to see it and do something about it, my loss is going to be way bigger than it should be.

I think a good security program is partly about defense and partly about what I call adaptive defense, the ability to see something and do something differently as quickly as possible to A, minimize the loss and B, fix or enhance the business process so it can move forward at the speed that it needs to move forward.

Michelle Dennedy: Yeah, I love that because it also includes in that architecture, the ability, where the technology hasn't caught up yet, you've got somebody who can limit through process or something else that's not necessarily a technological tool.

Steve Martino: Absolutely.

Michelle Dennedy: One more question for you, Steve, and it's the biggest question of all, of course. Given all of this and not necessarily limited to security, where do you see yourself going in the future? What gives you hope? What drives you? What's going to be your, I'm 85 and I'm still learning about this?

- Steve Martino: You know, when I look at the future, I've learned that I can't go five year plans. The world changes too much. It changes too fast and people are too creative and innovative and they're going to create new things that we never anticipated. I remember launching Sun Java and Sun internet strategy in 1995 and we talked about java having a 20 year growth for it to mature.
- Michelle Dennedy: Right.
- Steve Martino: Today, 20 plus years later, it's sunsetting already, versus peaking and that change just means you can't really have a five or seven year plan. I think the most important thing and what I hope to be doing, five years, seven years when I'm 85 is learning and being passionate about ...
- Michelle Dennedy: Just to clarify, it's not going to be 85 in five to seven years.
- Steve Martino: Totally not. Totally not. It was five years, seven years and when I'm 85 that I'm still learning and adapting and passionate about figuring out how to enable new innovations and new capabilities that unlock learning, unlock better lives for people and new business opportunities and I think as a security practitioner, I hope that I'm still doing that in the future.
- Michelle Dennedy: I love it. You know, on top of all this, you're a great leader, someone that we all admire and love working with and we keep it fun. We always laugh.
- Steve Martino: Absolutely. I appreciate it.
- Michelle Dennedy: Thank you very much, Steve.
- Steve Martino: Thanks for this and thanks for the ongoing partnership. We didn't talk about it at the beginning. I'm going to close with it, which is, security data protection, privacy, they are not disconnected interdisciplines. They are interconnected disciplines and you are about figuring out the what, and I'm about enabling the how. When we put those two things together, we know what data we have. We know what regulations and what risks we're willing to take and we know we have the right controls, and sometimes, we have to figure out new and innovative ways of putting those controls in place or making a business risk in a different way, but that's where the partnership is so important and I really do appreciate the ongoing partnership that I have with you and the whole data protection and privacy team. Thanks a lot.
- Michelle Dennedy: Excellent. Thanks, Steve. I'm getting misty on the sigma riders podcast.
- It's a wrap. You've been listening to Privacy Sigma Riders, brought to you by the Cisco security and trust organization. Special thanks to Kory Westerhold for our original theme music. Our producers are Susan Borton and David Ball. You can find all our episodes at Trust.Cisco.com or subscribe wherever you listen to podcasts. Please, take a moment to review and rate us on iTunes. To stay ahead of the curve between episodes, consider following us on Facebook, LinkedIn and Twitter. You can find me, Michelle Dennedy, on Twitter @mdennedy. Until next time.