Secure Connectivity to the Rescue

An elite Cisco team of experts deploys critical communications to disaster areas and touches thousands of people in need.

Michelle Dennedy: When disaster strikes, first responders and humanitarian relief workers risk their lives in service of others. This one's going to make you misty. When those same disasters destroy or degrade the communications infrastructure that these teams and communities depend upon, a different group of heroes are sent in, or go there willingly, as it turns out. Sigma Riders all the way. Sit tight as I sit down with two of these incredible networking do-gooders.

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, chief privacy officer at Cisco, once again. With me, I have two incredible Sigma Riders. I'm a total fan girl, and I can't wait for you to meet them both. I could spend hours talking about the important work they do. I already have over several beers. Let's get right to it.

Sue-Lynn Hinson is the manager of our Cisco Tactical Operations, or TacOps, a disaster and incident response team that deploys critical, often life-saving, network and communications infrastructure in areas that are hit hard by natural or manmade disasters. When she's not working to help humanity, you'll find her vacationing to help humanity, volunteering in places such as Haiti and the Philippines. Welcome, Sue-Lynn.

Sue-Lynn Hinson: Thanks for having me, Michelle.

Michelle Dennedy: Matt Altman is a longtime network engineer, also on our TacOps team. Matt has also deployed all over the globe, working closely with humanitarian organizations like NetHope and Mercy Corps. He also vacations doing humanitarian projects for humanitarian purposes. Thank you, Matt, and welcome to the podcast.

Matt Altman: Thank you, Michelle, it's great to be with you.

Michelle Dennedy: So, this is a, either one of you dive right in, tell us what TacOps is all about, and what your role is, and how each of you first got involved in this incredible program.

Michelle Dennedy: Sue-Lynn, why don't we start with you.

Sue-Lynn Hinson: Sure thing, Michelle. So, Tactical Operations, or TacOps, is a highly skilled team that can deploy in the aftermath of disasters, whether it's manmade or natural disasters, and provide critical, life-saving communications. So, communications is aid today, just as much as food, shelter, and water. So, we can provide that with our vehicles and portable kits so that the agencies that are responding to the disaster can do their jobs.

Michelle Dennedy: It's pretty incredible stuff. So, let's break it down a little bit further. When you say life-saving support and communications, what exactly? Are you rowing up with server farms and networking gear? What does this entail?

Sue-Lynn Hinson: So, we actually have things like mobile command vehicles and portable kits with equipment that provides network infrastructure, wired and wireless data connectivity, voice services, and all-over satellites, so it's not dependent on any infrastructure being there. Everything can be destroyed by the hurricane or whatever it is that has hit, and we can still provide critical communication services over our equipment.

Michelle Dennedy: It's really stunning. I first was with you guys in person ... I was going to say, after the Puerto Rico disaster, but it lives on, and even when the island, still, was at two-percent power, there you were, providing critical infrastructure for hospitals, utilities, essential services, and police forces, as well, right?

Matt Altman: Absolutely. In Puerto Rico, not only were we serving the NGOs that were working there, the government agencies, but we were serving the community, itself, in a lot of cities, scenarios we went into, in the town squares, we were the only connectivity that was available. I was amazed when we put up a network and you look at the stats for the day, and you see over 5,000 people attempting to connect over a 2-meg link. It definitely was a lot of lessons learned, but it was actually a great opportunity.

Michelle Dennedy: Yeah, it's interesting, too, as a large corporation, and we have fiduciary responsibilities, you point something out that's really quite interesting, you're saving lives and helping people, but boy, what a way to stress test the kit in the field. Five thousand people connecting a day, with no surrounding infrastructures, a really huge hit.

Matt Altman: The tools that we use, definitely, allow us to be able to do it, right? So, using this we can actually, seeing who's on the network, control the bandwidth, you know, we allow, instead of one person using up all the bandwidth, we could allocate a specific amount of bandwidth to allow them to use, maybe What's App or Skype on a limited basis, and email, you know, just to get messages out, to share that limited amount of bandwidth during disasters.

Michelle Dennedy: So, Sue-Lynn, jump in, you were going to say something.

Sue-Lynn Hinson: I think, actually, Matt covered it, so ...

Michelle Dennedy: Okay. You know what I love about the pair of you is, it really is like working with a very synergized team. I'm going to put you both in some extremes and I'm going to point the earlobes at you, the people. So, Sue-Lynn, let's start with you, how did you get involved in this? And, tell us a bit about your journey.

Sue-Lynn Hinson: Absolutely. My career has always been in technology. So, I would have technology dabbles during the day, and at night, I would volunteer to help people. For example, I was a volunteer firefighter for 20 years…

Michelle Dennedy: Now, wait, wait, wait. I want to slow this down for just one second. Like, she says this all the time, like "Oh, yeah, I was a fireman." What you have to understand about Sue-Lynn is, she weighs, maybe like, 40 kilograms.

Sue-Lynn Hinson: It's all about working smarter, not harder. There's ways to do things.

Michelle Dennedy: Alright. I'm sorry to slow you down, but every time I see you in person, I'm like, "Darn, this woman can carry football players down ladders because, thank you, physics."

Sue-Lynn Hinson: Yep, it's a lot of fun. That was one of my demonstrations in fire training, actually, was to carry a 250 pound guy down the ladder. And, like I said, it's all about the way you do it, not necessarily, your muscles.

Michelle Dennedy: I love it. So, 20 years, you're volunteering at night, you're a technical whiz kid during the day.

Sue-Lynn Hinson: Right. So, when I found out that Cisco had this amazing team that actually figured out a way to use technology to help people, I knew I had to be a part of it. So, luckily, for me, a job position came open and I applied for it, and I was lucky enough to get the job. So now I am living the dream and working for this team.

Michelle Dennedy: It's amazing, amazing, and I love that there's such humility in serving other people that, you can say things like, you were lucky enough. I mean, gosh, that we can get people like you guys that are willing to put yourselves at physical and your families on hold and all the things that you do. Matt, tell us a little bit about your story. You've got some incredible tales to tell. And we may ask a little bit about some of your body art, as well.

Matt Altman: Sure, that's fine. So, I'm actually getting ready to hit an anniversary on Friday, so I'll hit my 20-year mark with Cisco.

Michelle Dennedy: Wow.

Matt Altman: I know.

Michelle Dennedy: Lucky us.

Matt Altman: It's been an incredible journey, actually, and there again, I feel very fortunate to be able to do what I do within Cisco, that they allow me to do this. Definitely, at the top of the list of reasons why I'm still at Cisco, right? It's a great company.

Matt Altman: I started off with TacOps, actually, before I even joined the team, in 2003, after the US went to Iraq. I went to my manager and said, "You know, is there something we can do? We need ..." I looked at it and realized the country needed to be rebuilt. I was a voice engineer at that time, so I had certain technical specialty, and Tac Ops actually was getting involved with the coalition, and setting up voice networks in Iraq during that time. So, I went with a team to build networks in three cities there, so that was my initial deployment with TacOps. Came back, and did some additional work in other areas, and then in 2006, actually joined the team itself, and been full force ever since.

Michelle Dennedy: It's incredible work and I think, I'm a data-obsessed kind of gal, and when I think about Iraq in 2003, in war torn countries, refugee camps, places of hurricane and disaster, these are breeding grounds for people to do really dastardly things with data about other people, and exploit that. Can you talk a little bit about the security and privacy aspect of some of the work that you guys do?

Matt Altman: Sure, absolutely. And that's something that our team is kind of involved with. When we first were deploying networks, it was a little bit harder to figure out, to actually monitor the networks, just the way that they were deployed. Today, now, with Meraki, it gives us a greater visibility on what's going on the network, be able to turn on features, intrusion detection, and see what's going on, or you can do an advanced malware protection. So, we can actually block a lot of stuff that's coming in. We're using open DNS, it's kind of a first layer of malware protection. So, we're now able to, when they deploy those out in the field to try to do a much better job of knowing what's going on and protecting the vulnerable population, not only the vulnerable populations, but the NGO workers and the first responder workers, who are using that network for various things. They don't have to think about, so much, what's going on in a public Wi-Fi space.

Michelle Dennedy: Yeah, because I imagine the ability to be effective for the military, as well as, the local police force, and other first responders, to have clear channels and safe communications, must be absolutely critical.

Matt Altman: Absolutely. I just did a ... It was interesting, I looked at some data from yesterday to today on a security summary on the networks we have deployed in Puerto Rico and Greece and Serbia and Uganda, now, and there were 19,000 security attempts, I think it was 18,000 malware prevented and fought, that contained a little over one million, so it's an ongoing battle. But it's not something that you have to necessarily be thinking about all the time, but the system's taking care of a lot of that, and then it gives you visibility, what to do with those problems now in those affected systems. That's something we've been having discussion, now, especially in refugee camps, where you know you have people that had systems that are affecting it. How do you remediate those problems? So, that's been definitely an ongoing discussion.

Sue-Lynn Hinson: Matt brings up a good point is that this isn't something that you can just put in at the last minute. So, it really has to be built into the system, which is the beauty of the solutions that we have, is we've actually accommodated for that in the design of our solutions.

Michelle Dennedy: I think that is so critical because when I first got started in privacy, and I've done a fair amount of work with trying to catch child pornographer and human traffickers online. Often times, in the beginning, 20 years ago, we would constantly say it's security or privacy, and we need all the data, we need constant visibility, yada, yada, yada, no, no, no. And what I'm hearing you say, and what I've experienced, this evolution is, when you build security and privacy into the system, you actually can deploy it, even under time-critical and really rough, ruggedized conditions, and still get your objective achieved, while respecting the security and the privacy of these individuals.

Sue-Lynn Hinson: Absolutely. And that's why that's so important is because, when we go out, it's usually in the acute phase of a disaster and we don't have time to be designing on the fly, at that time, so it really does have to be built in.

Michelle Dennedy: I love that. And it's no compromise. I like that, also, about this team is that you guys come back after deployment, and during ongoing deployment, and really reassess and rethink what's working and how are we serving, because I think the service to communities is actually quite new, is that correct?

Sue-Lynn Hinson: Yes, so, historically we focused mainly on the disaster relief providers, right? So, the first responders, the government agencies. But recently, with things like the European refugee crisis and more recently Puerto Rico, we were focused more on giving the connectivity to the affected populations, the general populace.

Michelle Dennedy: You know, there's an anecdote that I've heard you talk about a few times that I thought really struck home with me of how this all kind of come together, that one of the first things that Syrian refugees ask when they arrive in Greece at the camps is, "Is there Wi-Fi?"

And when you first hear that, you're like, "This isn't them checking their Facebook feed or 'Keeping Up with the Kardashians'." Tell us about this, you know, they're coming up and saying... What do the refugees say to you when they see your truck and your equipment?

Sue-Lynn Hinson: You know, it was interesting in Greece, the guys told the story of the refugees coming over on a boat, and like you said, the first question asked was, "Did I make it to Greece? Where am I?" And then they ask, "Do you have Wi-Fi?" Because if you think about these people, they had nothing but the clothes on their backs and the cell phones in their pockets. And when they got to Greece, they didn't have the money or the means to buy a SIM card for that country, so the only way that they could communicate was over the Wi-Fi. And in Greece in particular, at the time, the way that they could apply for asylum was to do an initial interview over Skype. And so, you think about with Skype, if there's no internet connectivity, they don't have access to Skype, and so they could not apply for asylum. That really stressed the importance of that communication for them.

Michelle Dennedy: So, it's vetting of the individual to make sure that we're not flooding the camps with additional risks, as well as just telling your loved ones, "Hey, I'm alive! I made it!"

Sue-Lynn Hinson: Exactly.

Matt Altman: Absolutely. And it was more than, actually it was more than just providing Wi-Fi connectivity, right? Through the devices we're actually able to point, you know, when they join the Wi-Fi, they actually hit at the. Give them additional information, then send them off to another URL to work with an NGO, Mercy Corps IRC, that gives them a single source of truth as far as information. Are the borders open? Where do I go for resources? At that time, they were migrating through Greece, heading toward Germany…

Michelle Dennedy: Mm-hmm.

Matt Altman: So it gave them additional information about security and safety. We did something similar with NetHope ... and Facebook actually created a page with information in Puerto Rico. They had citizen reporters, so when they joined the Wi-Fi, it would point them to this page, and the citizen reporters in these communities would give them actual information, you know, what's

ongoing, what services are available, when's electricity coming up in this area ... so it's more than just the connectivity, it's actually providing an accurate source of truth for affected people.

Michelle Dennedy: Yeah, I just want to point out, we're having some sound things, but these are active, you know, life-saving people, and they're all out in the field, so I apologize to listeners if you're hearing a little background noise, but that's who these guys are.

I want to dig a little bit down with both of you guys just for a quick minute to just highlight our partnership with Mercy Corps, you were just talking about, Matt. It's so important for people to just even have a grain of control and information when they're just surviving. It's really hard. I've tried to put my mind in the spot of being displaced of my homeland, and standing there with just the clothes on my back, not sure where I am, what to do. Just the power of being told where the next camp is, where I can lay down and get some rest, where I can get some food, where I can get some shelter, where maybe I can find someone who speaks my language. That's the power of Mercy Corps. And then, how does NetHope fit into this whole picture?

Matt Altman: So, NetHope's kind of the umbrella organization made up of, I think it's 56 now, of the world's largest international NGOs. So it kind of brings them all together as far as their IT departments and kind of a sharing of best practices, and disaster assisting members with connectivity. Like I said, bringing them together to magnify the power of all these organizations. So, we work very closely with NetHope. A lot of times we'll deploy with them at the same time. In Puerto Rico, it was working with NetHope. We deployed to Nepal and to different locations. And we're currently working with them on, they're building a Caribbean response for the next hurricane season, so there's actually ongoing training with different private companies on best practices and current equipment.

Michelle Dennedy: Wow. It's incredibly powerful. Well, I want to get at least two stories out of you guys before we sign off. Matt, I want to talk a little bit about your body art. You were telling me over a beer what your most powerful and memorable experiences were, and where that was, and ... so tell the story again, because it gives me chills.

Matt Altman: I typically get some kind of art done as far as going on a deployment that definitely touched me in a different way, and of course the Syrian refugees and the friends I've made in the Middle East have definitely had an impact on my life. And manmade disasters ... Haiti was one as far as international deployments that really started it off for me. And that today is something that even today is hard to talk about ...

Michelle Dennedy: Yeah.

Matt Altman: So, it's kind of a reminder, the places I've been, the people I've met, and why I kind of do what I do. There's so much going on in the world today, that it's kind of a motivator.

Michelle Dennedy: It's incredible. It's really easy to go negative and sit behind our screens and not be sitting in a mud-filled field with a bunch of desperate people and judge. I think it brings it all home for me and gives me so much hope to just hear your stories, Matt. Thank you for your service. Really, not just to Cisco, but really to the world. It's an incredibly powerful, powerful thing. Miss Sue-Lynn, you're not getting off the hook without a personal story.

Sue-Lynn Hinson: Gosh, there's so many. Like Matt said every one of the deployments we go on impacts ... it certainly has impacted me in some way, you know, the people that you meet along the way. Because you realize when you're doing these things that it's not just that you're providing technology. It's helping people, real live people, and you make friends along the way, and for me, personally, I've kept in touch with many of the people that I've met across the world at deployments, and have ended up going back and volunteering for Habitat for Humanity and other organizations in those areas that were worst hit by the storms where we worked. So, things like the Philippines, and Haiti ... all of those deployments really changed my life because after that I continued to go back and keep in touch with those people to see how they were doing, and volunteer where I could help out.

Michelle Dennedy: It's incredible, and ... getting me all choked up! I won't even ask what gives you guys hope. You give me hope! I also want to point out to you, just in closing and summary is, I often say privacy is good for business because respecting information and the stories that we tell is incredibly powerful to our brand, and how we build products and serve, but I think today in this conversation, and your ongoing inspiration, and certainly in my life ... humility is good for business, too. It's like, chasing you guys to talk about yourselves is so much harder than getting you to get on a plane in fifteen minutes' notice with your go-bags, and go off and save people's lives, so thank you. Thank you for everything you do, and coming on the show, and inspiring me every day, and you guys are my heroes.

Sue-Lynn Hinson: Thank you so much for having us.

Matt Altman: Thank you.

Michelle Dennedy: 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 on trust.cisco.com or subscribe wherever you listen to podcasts. And 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!

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