

How Netgear Is Enabling IP Transformation at Scale

Matt Stagg in conversation with John Henkel, Netgear

IAMT Studio Visual Podcast Series

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Hi, and welcome back to the IAMT podcast. I'm here with John Henkel from Netgear, who's a product marketing director. Thank you for coming. And can you explain a bit? There can't be many people out there who don't know what Netgear do, but we are moving into IP — you guys do it, and do it well.

Thank you so much. Happy to be here to talk about networking and broadcast as a thing. Yeah, and it's kind of a struggle for us actually, because everybody knows Netgear. You have us in your home or your business. There's little five-port blue switches everybody has. Like, I got one of those. But as far as broadcast, they're sort of understanding why we're here now, because IP is getting more prominence, but we've actually been around 10 years in AV and broadcast, in that dedicated world. So now it's no longer, "What are you guys doing here?" It's like, "I've heard about you, and I know we're going to IP. How can you help us make it easier?" And that's why we're here.

Right. Yes, and that makes sense. And people have been around IP in other things. Do you see it as almost not just a technical challenge? Is there almost a cultural challenge? Because we as broadcasters don't really like change, and if we do, it better be slow.

Absolutely. My impression of a lot of broadcast folks are just like, "Okay, show me," right? Sit back — which is good, because they've had to do that over the years. I started in broadcast as a young chap, and I understand that you have to make sure things are going to be there when people want it. It's not that that doesn't happen in commercial AV as well, but they're more reluctant to change, for sure. And now IP's come along, and it's a new thing, and a lot of them are experienced broadcast engineers, no question, super smart, but they don't know IP. And so now they want to make sure it's done right, and it's repeatable, and it's going to be there on time when it's supposed to be there, whether it's time drift, everything else. So they're a little more reluctant, for sure, but we're trying to help change that, of course.

Yeah. In media and entertainment, in broadcast and in general, we're hitting a big skills gap. We're at that kind of inflection point for lots of people moving out of the business. We don't necessarily entice people like we used to. You go, "I'll be a runner," and it's a massive way. But some people now go, "I'll work at Meta." It is fine. But IP, I think, starts to have a real interest, because everybody knows what is good, you know? And everybody has used it in their lives in some way. Where do you think, when leaders start to bring this in and say, "You know, we want to move with IP," and then they've looked at the cost analysis — where should they really focus their attention, do you think, in this strategy of moving to all IP?

Yeah. There's two parts. I want to get back to the intern part, or the starting part, too. That's a good one. But the second part of your question first: it's really go slow, I think, is part of that. And Netgear, as a company, we're not going to do the entire NBC 30 Rock facility. We're going to do smaller facilities. When it's coming down to a greenfield opportunity — a new studio or mobile trucks and everything — then great, check into IP. Audio — we have a lot of applications for audio and comms. We just announced a great partnership with Riedel, with Ross Video as well, EVS. All these big companies are realising — I shouldn't start mentioning people. But audio has been over IP for many, many years, and people have already adopted that. We're a big Dante supporter. AVB as well.

Right. Yeah.

And we've found the ways to make that work seamlessly on a switch, so you can trust us for that. And then if you need to move into video, we've been doing NDI for years. We support IPMX and 2110. So I think my advice would be to go slow and take a certain studio and convert that, or a mobile truck. We're big on OB vans as well. And like Savannah Bananas, locally in the US — baseball team — they have mobile trucks now, a little mobile rack. They use us for that, so they can go on site wherever they go, and get up and running really quick, whether you have fibre or copper or whatever, whether you're using whatever AV-over-IP protocol that we have to use for that.

Well, that's really interesting, because actually, coming from doing sound first, people don't realise how complex sound is. If you can make sound work, you can make video work. It's just bread and butter, moving packets around. But as someone once said, "Your ears don't blink."

I'd never heard that. That's a really good point. I remember back in the days as a video editor — I spent a lot of years with that — trying to get digital audio from D1 or D2, and little click and pop happening here and there is driving you freaking crazy. And you notice that way more than just a little dropout in video. It's a good point.

So obviously Netgear, as we discussed, are in so many, many verticals. You'd be hard pushed to not find it. But what do you feel — obviously IP's been around for data comms for however long — but can you take some of those skills that you've got in those environments and bring them in and almost hold the hand of the broadcast industry?

Well, yeah, and that's the key. We started really pushing into AV, commercial AV, years ago — 10 years ago. And those same benefits for that industry work for broadcast as well, with our profile-based approach. So if you're worried about going into a switch and having to log in and go to 10 different menus, set these different settings, and maybe you're a human and you transpose a one and a two, and then it doesn't work and you have to figure out where. So what we did was create this profile-based approach, so if you're doing Dante, AVB, whatever, we have a profile for that, and we'll set the switch up for you. Now, a lot of engineers like to go in and do command line or do it on their own, because that's what they know how to do. And we've had people come up to us and, years after using it, they go, "You know, I really like the benefit of this." The benefits of this are that it's certified.

We work with all these manufacturers, like the few I mentioned earlier, and others. And also engineers can know it's repeatable. So you have a junior-level tech who can go out there and configure that remote truck or that remote studio wherever, because REMI's of course a huge

thing these days too, and it's all IT-based as well. You can deploy these systems much faster and know they're going to be repeatable and set up, certified. So it's a big thing.

Yeah. And then what I really like about IP is just to be able to decouple the underlying technology, be that — I run partnerships and strategy for Neutral Wireless, so we're private 5G. And you go in, and actually, as a broadcaster — I'm ex-BT Sport and Warner — I don't really want to know what's going on under there. And I just want it to work, but I think we've always said, "Oh, do we want 5G here?" Or, "Do we want IP? Do we want cables? Do we want public, private?" All of this stuff. Once you got an IP packet, it doesn't matter. We'll get whatever technology, but that decoupling means you have so much more freedom and technical freedom to be able to go out and know that the interfaces work. And that's it, and you get it back to the cloud. So we did touch on it, but I'd like to dig a little bit deeper into some of the things around leadership, organisational support, before going through this migration.

Yeah. I think it's training, number one. And we've been talking about IP for over 10 years, 15 years probably, and it's always back to training. We have to train the IT people in AV concepts a little bit, but also train the AV people in IT. And that's been the hardest disconnect. Same for broadcast as it is for commercial AV. People know broadcast. I know routers, I know clock, I know genlock, no question. But IP stuff is different — boundary clock, grandmaster, all these different things. And 2110 is its own little beast, I know, for sure. But in order to get the knowledge level up, you've got to find that training somewhere. So we recognised that early on. We have our own training academy for free. We have a 2110 course for just the basics. We have our own switch courses, of course, for switch certification at various levels. But also we host, like, a dozen other manufacturers' training, and we're getting more of that all the time. So whether you're somebody who's new to the business, you're the runner that's trying to learn more to get up the ladder there, well, you can take some courses for free and start to understand all these different concepts about what it is.

But you really hit on something there, and we see it in many different technologies: you've got a Cisco or a Juniper router, and what can you do with it? Anything you want. So you don't want someone to come up through the Cisco Academy, because loads of that they don't want to know. But you need to have organisations like yours that are putting out these IP for broadcasters — that's the big thing. And I'll be honest, that just makes everyone feel a little bit more comfortable, that you're talking not to the person who puts networks in for banks. It's like, no, you got to talk our language.

Yeah, and we can do that. We do. Been around 30 years, which is cool. Although people still think of us as a home networking company. So they have to get that.

Yeah, I do know. It's one of these things. You're kind of like the Nestlé for the networking industry. There was one more thing I wanted to — that's it. What are the most common pitfalls you see? And I think I've seen this when I've spoken to people: they just relate everything to SDI. How does this work like that? And do you see a bit of pushback like that?

Yeah, sure. I mean, that's the workflow they're used to. And I think what's kind of good is you can still kind of go down that road. Being on the marketing side, I've made some diagrams of installations or general ideas, and you just take out the routing switch in the middle, and you put in a network switch. So a lot of that is the same. You have an endpoint. You have encoders,

decoders. You have all the different bits. It's still sort of the same structure overall, really. It's just now it's over a network. I mean, I'm simplifying it grossly.

Yeah. But that's what we need as broadcasters — we just need it to be simplified. We know it's different, and we need to know the difference and the other stuff, and we need to not know anything we don't need to know, because it's such a massive topic. IP is everywhere. But I've certainly seen it — we had a huge drive in BT Sport when we moved to remote production, because you're all IP. That's it. You've got to get that packet there in cloud-based or remote production. Well, I think this has been fantastic, and we need more of these conversations in the industry, and bring the IP and the SDI community together.

That's what we're saying now. So you've got to get along — get on the ship, if you will.

Yeah. Thank you very much. And thank you everyone for listening. And we'll be back with more from the studio a little later on.

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