

Transforming Live Production with Verizon: From the Super Bowl to the World Cup

Matt Stagg in conversation with Josh Arensberg, Verizon

IAMT Studio Visual Podcast Series

Duration: 15:37

Welcome back, everybody, to the IAMT podcast with me, Matt Stagg. And now it's my pleasure — we have seen Josh before, but now we're going to talk about both of our passions, and that is adopting private 5G for networks, which we talk about a lot. Josh is the global MD of sport, media and technology at Verizon. What I'd like to kick off with is, private 5G now is not something that's being trialled.

No, it's going.

And I'd love to hear the journey, and where you are now in Verizon, for the audience.

I mean, I think the journey starts with, obviously, the deployment of 5G. And then 5G comes along, and then all of a sudden you go, "Hey, wait a minute, 5G's working really well." 5G's, in a way, competing from a performance standpoint to your home internet. And then all of a sudden you go, "Okay. Wait a minute. What happens if we do private 5G and you leverage CBRS in the US, and start to think about putting it into stadiums and venues?" And you know this really well, Matt, which is all of a sudden they see a new camera angle, they see an untethered last mile. Maybe it's an electronic news gathering crew — an ENG crew — they're out on the street, and historically they were using LTE and it was working okay, but then all of a sudden 5G starts to really get deployed and delivered.

Verizon starts to stand up its network, and all of a sudden you have these opportunities to create these umbrellas, these spheres of private 5G. And those private 5G deployments at this point are what our customers are asking for. It's what we're delivering. We're delivering it for the NHL, we're delivering it for the Super Bowl, we're delivering it for the World Cup, and all of a sudden you start to see it being leveraged in a new way, in a great way. And although, Matt, you and I, we love talking video, right? We love the video use case for private 5G. We now start using it for point of sale. We start using it for ticketing, officiation. We start seeing it coming into the world of player-to-coach comms. And all of this, what it really says to me and the whole ecosystem, is you now can do something with a 5G module, both on the private 5G side, but then on the public side, and there's an entire ecosystem of opportunity here.

Yeah. And I think what we found — it came out of 5G for broadcast is great. Everybody understands it, but like you said, you talk about stadiums now. When you look at the opportunity for a stadium owner, actually the cameras aren't probably the big money-maker for them. So I see you've got DAS systems, and you guys put that in. So everybody in the bowl upstairs, they're on public. You need Wi-Fi still. There's offices there and booths. The operational layer is private 5G, and there's going to be no doubt that that all increases as we move along. But everybody will be really interested in some of the things you're putting in around this technology

for the World Cup.

Yeah. And so the World Cup is a great example of where we're behind the scenes powering, right? We're powering it with private 5G. We know we did it for the NHL, and we did it for the NFL. I think the NFL is maybe the best example of what brought us to the World Cup, because we were doing it for coach comms for the NFL. We're in every one of their venues. Their venues generally match what's happening with FIFA and the World Cup — the soccer field — and so it makes a lot of sense that football is football is football. And so all of a sudden you go, "Hey, listen, who really understands these stadium environments? How do these stadium environments deliver this experience?" And then we built up this incredible relationship with FIFA, and FIFA really said, "Listen, who's a partner who we can have skin in the game with?" And that really then led into — okay, one of the many aspects of what Verizon is doing. It's not just private 5G, it's the network, it's the broadcast core network capability, it's all these different pieces.

But specific to what happens in the venue and what happens with private 5G, it really then says, hey, listen, there is a phenomenal ref cam opportunity. We saw it in the Club World Cup. It worked really well, and now it's like, how do you take that and really amplify it for the World Cup? And so that's a capability that's going to be in every stadium for the World Cup, and it is a great use case for how do you change the game? How do you create a new angle, a new vision that's going to deliver?

Yeah. And there's lots of talk, and we've seen it creep into broadcast, is that fan-based content — it's being in the stands with the fan. And actually, I think for me, something that I really like is — you see it on the TV, and if you're in there you feel it — to look at a fan's reaction. And if you've got it shot on an iPhone with a gimbal — we're about emotion in sport, and to capture some of that and share that with the global audience must be awesome.

That's right. And so we see that with the capability that gets deployed, but there's many different ways for these capabilities. So like we talked about, it could be point of sale, it could be officiation, it could be a whole bunch of places where the connectivity's no longer the issue. And you mentioned earlier these DAS systems. I still think there's a lot of education for our own industry, as you know very well, Matt, about what does it mean to deploy a private 5G network inside of a venue, right? How does this differ from Wi-Fi? What does it mean when you're competing with Wi-Fi with all these other people? What does it mean, in a way, when you're competing with cellular with other people in the venue? And so it doesn't just mean CBRS, and it doesn't just mean the fact that Verizon has these PAL licences and other spectrum assets to put against it, but it means having the right capability, the right use case that then goes and sits on these networks that was never able to — or at least if it was previously delivered with Wi-Fi, which it probably wasn't, but if it was, probably had challenges, right? Because you've got this opportunity for much clearer spectrum usage. You've got this opportunity for dedicated capability to deliver these use cases against.

Yep. And the thing — and you did touch on it — there's an educational piece, especially with stadiums. You go in and you talk and you say, "Oh, 5G, here's what we can do. It's private." But still, they think either, "Oh, it won't work because our 5G is very good," and they're talking about the public, or they go, "Great. All my fans are going to be able to get a great experience." And it's just trying to explain to them the differences in technology and what they enable.

Yeah, and let's talk about it. We mentioned the DAS. Now we're talking a lot more about neutral host, right? Where you can, with one combined radio system, support Wi-Fi, support multiple cellular operators, and support a private 5G network on top of that. And I think as we see these refreshes start to happen — and not to say, the stadiums have always been really savvy about DAS and these distributed antenna systems that they've installed — but it really becomes this, like, hey, how do I use that to enable not just the fan experience, but the concession experience, the security experience, crowd analytics, all the other things that go into making these environments really seamless for the consumer.

Are you seeing — because there's always been a push from our industries. We develop this solution, be it Verizon-size scale or Neutral Wireless-size scale. But are you seeing now more of a pull from the industry, as opposed to having to constantly go out and say, "This is what this does"? Are you starting to get people who now know about this?

I think that's a great question, because I think where we are is we are at the precipice of the manufacturers really starting to realise that they need a 5G radio in a device. I think this is something that's really important for our industry to say, hey, listen, maybe it was an IRD that previously had a satellite receiver module, and that satellite receiver module is going to change, right? We know there's changes happening there in North America and in the US, and so you say, hey, listen, does it make sense to put a 5G radio in there? And then does it make sense to leverage that new last mile, and that new last mile being 5G? And so I think there's an ecosystem opportunity right now to look at what are you doing with 5G today?

If you're doing nothing with 5G today, but you're relying on some type of transport, does it make sense to have a conversation with Verizon, right? And think about what does a module look like? What is our ThingSpace — we call it ThingSpace — which is really an IoT conversation, because you're not using it for text messages. You're using it to deliver your product or your solution against. And so there's a lot there, and those are the conversations that I really think are starting to happen. And so I think that's on the — we'll call it manufacturer — production side, and then I think we take it all the way over to the consumption side, right? Where you have TV sets and conversations there. Do you now put a 5G radio in a TV set? Does that make more sense than some other type of receiver?

Yeah. And one of the things that I find interesting in our industry — it doesn't happen in the technology a lot, but I have seen it, and it's partly all of us in the 5G technology area — is there's massive disconnects between creative — and I spoke about it yesterday — and technology. But we took the approach that it's always customer first, but in effect, our customer is the production studio.

Well, I mean, come on, nod out to Neutral, right? Because I think one of the amazing things about Neutral is that you're being pulled in by the productions, right? Where I'm being pulled in maybe by the venue owner, or by the event itself. And so it is a really interesting conversation here, because there's one side that says, "Hey, we want to do something really creative." And I think you'll see that with what we just did with Fox Entertainment, where we did this incredible capability with *Extracted*, a TV show that was shot up in Canada, right? Not even in the US. We set up a private 5G network and it changed the way the production got done. They were using it for every one of their cameras. They were using it for all these angles that they never were able to get previously. And I think that's a really important thing when you leverage this technology in

a way that previously you would have had to maybe do COFDM, or you would have just not even been able to afford to do it previously.

Yeah. And the other thing is trying to get across — because you go to a producer, and this isn't happening much, and we've done big roadshows just on education, coming in and saying, "Okay, we've got this. Here it is." And let them come and say, "Okay, well, I've got this new camera, I've got this new module. Will it work?" "Oh, yes." And then you get the ball, and we get people phoning us up. A production company we'd never had, with an offshore sea race, and they're like, "How can you help us? Can we do this and that?" And, I mean, we love it.

Well, we're raising the bar together. I want to be really clear about this, right? And this is something that I say both internally, I say to the industry: this is a capability that if you're not watching it, if you're not having the conversation with Verizon or with Neutral, you need to. You need to think about how this is going to affect your product or capability from your side, how it's going to change the thinking of the director or the producer. Maybe it's a shot they never thought they could get, and all of a sudden they can get it. And I do want to say there is the elephant in the room, right? Which is LEO — low Earth orbit. What does that mean? And you know what? I think it's complementary. I really do. I don't think these are mutually exclusive. I don't think you have to say one or the other. You know what? I think it's great. Do both. Do everything you think you can do, because at the end of the day — and this is how I was raised as a broadcast engineer — it's a mission-critical live environment. I don't want you to lose the signal, no matter what.

Yeah. And that goes to say — this is one thing we don't talk about when we're shooting on location, even for scripted, they'd still need the capability — that's amazing, you create a bubble of the best connectivity ever. It's got to go somewhere. And that's where the complementary piece is, of being able to send it over LEO, which we've used when we've set up an aircraft. We're probably going to stay here and chat all day, and I need to lock the door until I get some spectrum from Josh.

And I need to lock the door until I can get some really cool firmware out of Matt about how these handoffs all happen so seamlessly for Neutral.

Yeah. And it brings us back to what this place and IAMT really enables. Even just — I had to speak with Josh, and we just bumped into each other, so we'd have something earlier. But we'll go on, and we'll be back later on. So please do join us, and thanks again, Josh.

Yeah. And feel free to reach out. I really do appreciate the conversation, not just on behalf of Verizon, but on behalf of the industry.