DR: [00:00] This year at TM Forum's DTW Ignite event, you talked about Microsoft's hypervelocity engineering. So what is hypervelocity engineering?

Robin Cole: [00:10] So it's basically about three components. One is small multidisciplinary teams with domain expertise. So instead of bringing a large crew together, you've got a small set of folks, so think four or five instead of eight to ten. The second part of it is something that we call solution accelerators, and basically we've shipped over 140 AI solutions into production over the past two years. So we've been harvesting those best practices, those templates, those architectures. The last part of it is, of course, the AI agents and tools. So think about this as AI native application development methodology.

DR: [00:46] Awesome.

Announcer: [00:52] This is "Telco in 20," a podcast that helps telco execs achieve a competitive advantage with AI and the public cloud. It is hosted by Danielle Rios, also known as DR. Today we're talking to Robin Cole, Vice President of Engineering at Microsoft.

DR: [01:11] Hi, guys. I'm DR. It typically takes telcos years to ship new software. Now, Microsoft is seeing operators build and deploy AI capabilities in weeks, not months, weeks. For example, AT&T is using GitHub Copilot to accelerate their AI application development. KT Corporation in South Korea and Telefónica are both building their entire software development capability on the Microsoft stack. These aren't pilot projects anymore. These are production deployments driving real business outcomes. The secret? What Microsoft calls hypervelocity engineering, small multidisciplinary teams with domain expertise that bootstrap software development. But here's the thing that makes the speed possible, using an end-end integrated software development platform. While AI coding tools like Cursor and Claude Code build superior front-end experiences, they still depend on other company's cloud infrastructure to deploy final solutions. The hyperscalers? They own the whole backend stack. They now offer an integrated end-to-end development environment and support deployment of an AI application complete with compute storage databases and APIs already connected. No integration delays, no infrastructure bottlenecks.

[02:30] Today, I'm talking with Robin Cole, Vice President of Engineering at Microsoft. We're going to dive into how hypervelocity engineering is compressing telco software development cycles from years to weeks. Why Azure AI Foundry is becoming the platform of choice for operators who need to move fast and the real world speed advantages that AT&T, KT, and Telefónica are seeing by deploying AI into production. So, let's take 20.

[02:59] Robin Cole is Vice President of Engineering at Microsoft. Hi, Robin. Welcome to "Telco in 20."

Robin Cole: [03:04] Howdy, DR. Thank you so much for having me.

DR: [03:07] I'm so excited to talk to you again. I met you at MWC at the Gen AI Summit.

Robin Cole: [03:13] Yes.

DR: [03:13] And so you're VP of Engineering at Microsoft covering telco, but also other sectors. Tell me a little bit more about your role.

Robin Cole: [03:19] I think that I have the best job at Microsoft. I get the humble opportunity to work with our most strategic customers and partners on their hardest, hairiest technical issues, specifically around Azure and AI. So our organization, it's called Industry Solutions Engineering, part of the broader Microsoft. We work with customers and partners in a pair programming sort of way so that as we sit down with them to solve their problems on Azure with AI, then ideally we do a little bit of upscaling. We share with them what we know, we leave them better than we found them, and we're able to help them solve their specific issues. And we do it across all of the industries. So Microsoft recognizes about eight industries, everything from retail to government to healthcare to telco media and gaming. So we worked with customers and partners across the world talking with them about their use cases and how we can help them solve their problems on Azure with AI.

DR: [04:08] Yeah, it's fun to be on those front lines working with customers. That's super exciting. And so this year at TM Forum's DTW Ignite event, which was held in Copenhagen, you talked about Microsoft's hypervelocity engineering, which helps Telco keep pace with AI innovation. So what is hypervelocity engineering?

Robin Cole: [04:28] It rolls right off the tongue, doesn't it? Hypervelocity engineering.

DR: [04:31] Yes, exactly.

Robin Cole: [04:32] This is actually an approach that we've come to. The organization that I'm part of is called Industry Solutions Engineering, but part of Microsoft, of course, our leader directed us about two years ago to hyper focus on AI. So we did a pretty hard right turn at Albuquerque in order to focus purely on this, knowing that so much of what customers and partners have in place is fundamental to making AI successful. Do they have the right data in place? Do they have the right governance in place? Are they aligned at the executive level that AI is where they want to go and what they want to do? So, as we made that turn towards AI, we started to realize we actually need to evolve the way that we show up and help customers and partners on that AI journey. So hypervelocity engineering is a collection of those learnings. So if I were to simplify it, it's basically about three components. One is small multidisciplinary

teams with domain expertise. So the small portion, instead of bringing a large crew together, you've got a small set of folks. So think four or five instead of eight to ten.

[05:28] And then when you think about the multidisciplinary, previously it was devs, devs, devs, code, code code, maybe throw in a TPM, maybe throw in a BPM, maybe throw in a data scientist. Now it's bring in your market analysis person, bring in your business analyst person, bring in your UI/UX person, give us that well-rounded team to work with, and we can move very quickly in a narrative style. And then that domain expertise, whether it's technical or industry. Dumb models return dumb results so you need smart people sitting around programming them, making sure that they're pulling in the right data and performing the right functions and tasks. So that's a key part of it. Small multidisciplinary teams with domain expertise.

[06:08] The second part of it is something that we call solution accelerators. And basically we've shipped over 140 AI solutions into production over the past two years as our organization. So we've been harvesting those best practices, those templates, those architectures. So the solution accelerators are a reflection of that. We've got repos, we've got, again, those templates, reference architectures, code that can really bootstrap people. So that's a core part of getting going quickly and accelerating to value.

[06:35] The last part of it is, of course, the AI agents and tools. What we're getting to know, what we're learning to love, what we're evolving it feels like on an hourly basis, but having that across the entire workstream is core to being able to deliver in a Hypervelocity engineering approach. So if you think about software development, agile methodology software, think about this as AI native application development methodology.

DR: [06:59] Yeah, well, you just mentioned agents. Microsoft has been focused on agentic AI for telcos, which are self-directed AI agents that go further than just providing insights and actually can take action and get work done. I'm a big fan of that. It's so much more than the chatbot and just getting answers. And so what are some of those ideas that you're sharing with telcos and those use cases that you talked about?

Robin Cole: [07:20] Yeah, things tend to fall into one of three buckets. There we want to drive cost savings, we want to optimize what we're doing. We want to streamline what we're doing. So that's fundamental and foundational and certainly something that we want to help enable with customers and partners. The middle portion is automation. What can we automate? That's really exciting. It's getting better every day. We still have to make sure that we've got humans in the loop before the agents take any action.

DR: [07:46] Totally.

Robin Cole: [07:47] But getting a little more self-directed, they're getting a lot smarter. And then I'll say the third piece of it is where the innovation happens. So providing you've got all the infrastructure, you've got a pretty high level of trust in terms of what the agents can do for you. Now we're focusing on the innovation. Where are those new business models, where are the new revenue streams? Where is the real innovation happening? We try to keep people on the spectrum as we think about things. There is AI augmentation, make sure that humans are in the loop. Make sure that humans are still pressing those buttons. And then there's the actual automation of it all. When we can start to take more of a step back because we have confidence in what the agents can deliver.

DR: [08:19] At this point, with telco learning and the different businesses and enterprises that you work with, are you still working with more horizontal ideas that are applicable across many industries? Or are we getting to the point now where some of these agents are verticalized, they're like built specifically for telco?

Robin Cole: [08:35] Little bit of column A, little bit of column B. There's obviously a lot of scenarios that go across industries. Probably the most common one that we've dealt with has been call centers, contact centers-

DR: [08:44] For sure.

Robin Cole: [08:44] ... to modernize those and add agents. And that's also a great example that you build on top of it. Let's say you've got that great foundation, you've got your agentic network in place. Now you start building those purpose-built agents. A lot of telcos have SMB businesses and they're starting to fill that gap by offering their SMBs purpose-built agents. Think CIO in a box, think business analyst in a box, think creative in a box. So again, a little bit of column A, little bit of column B. As we look more broadly across the industries, there's also a ton of work that my organization has been involved with, with pharma and call centers, again, customer contacts, providing all of those summaries, working with retail in order to improve the shopping experience, the predictive nature of the shopping experience based on patterns. Ultra-personalization is pretty prevalent in every scenario, wherever you go. So, yeah.

DR: [09:30] A little bit of both. Yeah. We're really focused at Totogi, really kind of making that telco-specific, not just agent but everything because that's all we do. But I understand with Microsoft, you guys are covering such a wider breadth of industries that a lot of these patterns are easily replicated and usable across them. And so Microsoft has a product called Microsoft Azure AI Foundry, which you guys describe as an AI application and an agent factory. So you can pump out a bunch of these agents. So tell us a little bit about the Foundry and how is

	this different from some of the other AI platforms that are available in the market?
Robin Cole:	[10:03] Yeah. So if we go back to that, everything's on a spectrum. You've got augmentation, you've got automation. We've also got the low-code, no-code, pro-code spectrum, and Copilot Studio would be on the low-code, no-code side of things. That's an environment that gets you going. A lot of it's pre-built. It's easy to drag and drop. Natural user interface. On the other side of the pro-code is AI Foundry. So it's a model platform. It's got purpose-built models. It's got third-party models that we support. So think of it as a unified platform as a service for AI development. And it allows folks to build the AI apps in the environment and then publish. It's got an experimentation framework built to it, SDKs built into it.
	[10:40] So it's fully featured allowing folks to accelerate their AI agent development, but it is ideally designed for those custom developments. So as we often start with our telco customers and partners, they want to play around a little bit. I love to set them down with Copilot Studio, GitHub Copilot, turn it into agent mode, and then just start talking to it using your natural language in order to start saying, "This is the kind of app I want to build. These are the APIs that I want to call," and then actually watch the magic happen on the screen. Very impressive. And then if you really want to roll up your sleeves and get into the coding aspect of it, there's AI Foundry.
DR:	[11:11] And does it have the backend into Azure to start to use those services and APIs so that if you ever need to compute or a special database, it's right there at your fingertips?
Robin Cole:	[11:20] That is exactly it. It's like you read the marketing material.
DR:	[11:24] Yeah, people don't really realize once you've built something, an agent, an application, whatever it might be, you need these resources like compute, storage, databases, maybe you want to integrate machine learning. And so having that backend already built in you can literally deploy with a couple of keystrokes is pretty amazing. And I think it really differentiates from other AI coding platforms that are not connected to that cloud backend.
Robin Cole:	[11:49] Yes.
DR:	[11:49] And then it seems like these are not necessarily telco specific, telcos can use them, but they're more broad IDEs and development environments.
Robin Cole:	[11:58] Yeah, absolutely. We do have some custom-built models built into it that are industry-specific or domain-specific, HR, finance, those kinds of things. But yeah, you're absolutely right. The fact that it's got the backend, the fact that it's

built on the database, the fact that it's got the APIs, it is an entire environment that you need to get going and accelerate your AI app development.

DR: [12:16] And I'm really excited. What I'm starting to see now with these tools is that it's not just the development environment, but it's really thinking about the PRD, the product requirements document and spec, all the way to testing and deploying and that end-to-end AI experience where you're vibe coding and creating. And so I always like to bring it back to reality and I think you guys are moving past pilots and into real deployment. So do you have a couple examples that you can share with us?

Robin Cole: [12:42] Yeah, absolutely. So we've got a great partnership with AT&T. They made a commitment to Azure and Microsoft a couple of years ago, and we have been working, even my organization, with them very closely to help them with their adoption of Azure AI, the Copilot Studio. GitHub Copilot, very specifically, is being used to accelerate their development of AI-driven solutions. We're looking at Foundry now, helping them build out specific agents again on the autonomous network. And we're talking with them about potentially new revenue streams that AI would open up here, but the fact that they've got their entire foundation built on Azure, embracing Azure OpenAI, they're very forward-looking. AT&T had actually built quite a bit of stuff before Microsoft released some of our products and they came to us and said, "Gosh, if we'd known you were building these, we might've not spent the time."

[13:25] So we've been learning a ton from them because they were actually ahead of us a little bit in terms of how they were envisioning AI in the telco space and what it could do for network operators and telco providers. Another one that we've been working very closely with was KT out of Korea, Korea Telecom, South Korea. We announced a deal with them as Microsoft late last calendar year. And KT is a really inspiring case. Again, my organization has been working with them. I've met with them many times to try and understand what their vision is, and it is really impressive. They want to use the Microsoft stack, everything from Copilot, GitHub, M365, Teams, Azure AI.

[13:59] They want to build up their internal software development capabilities. They want to partner with Microsoft and sell to, sell through, sell with in terms of distribution through South Korea. And they want to be able to innovate on top of their platform and grow their business and generate new revenue. So it's a complete solution for KT and we're having a ton of fun working with them in depth to understand how to help them accelerate and deliver on that. And then maybe one final one to mention is Telefónica. Again, a public deal that we've announced. They're going all in on Microsoft, again, Azure OpenAI, Fabric, GitHub, GitHub Copilot, all with an idea of modernizing not only their network stack, but also streamlining their developer networks and accelerating

telco-specific solution engineering. So again, it's been a lot of fun to work with them and hear their ideas and help them realize them.

DR: [14:46] Yeah, something interesting that you said there about AT&T, they said, "We've been building this on our own, and if we had known that you were doing it, then you would've saved us time and money." And I think in the age of AI where early days and everyone's simultaneously building lots of different tools, I don't think you can sit on the sidelines and wait. I think organizations have to just get out there and try. Every day a new tool, an advancement comes out. It could be Microsoft, it could be a tiny startup, but I think it's going to be like this for a while.

Robin Cole: [15:17] And it used to be hyperbolic to say a new thing every day. Now it's just Tuesday.

DR: [15:22] It's a reality. Last year, I was really dreading it and now I look forward to it and it's just being so comfortable with that constant change.

Robin Cole: [15:29] Exactly. One of the things that I try to say to folks, it's true. You do feel like agency is being taken away from you to some extent that things are happening to you. An agent can give you back that agency.

DR: [15:40] Yeah. Well, I believe it's going to take a lot of mundane, rote work that humans didn't need to do, and now we're going to focus on what matters, which is spending time with customers and doing those things.

Robin Cole: [15:52] Absolutely.

DR: [15:56] Well, you and I are both futuristic girls, always thinking about what's coming around the bend, especially with AI, and sadly, I'm always on the go and sometimes I'm forced to take meetings in my car. I call it a car office, but I understand Microsoft is doing some cool things for car technology, so what's going on with that?

Robin Cole: [16:10] It's funny you mentioned waking up every morning and seeing what has happened, and for those of us that have to live our lives that way, we have to stay on top of things. So yeah, the ability to turn your car into a functional office without putting other people at risk. Very important. Satya shared recently that he uses Copilot not only to catch up on things, but also to have an active dialogue. So he shared a story where he no longer has time to listen to each one of the podcasts by themselves. If you're 14 minutes or 21 minutes, he no longer has 14 or 21 minutes. He needs his Copilot to summarize all of them and then he can interrogate it on the specific things that he thinks is interesting.

DR: [16:47] It's amazing.

Robin Cole:	[16:48] Did you see the example of Satya, Bill, and Steve talking to each other and having Copilot interview them?
DR:	[16:55] No, I didn't see that, but we'll link it in the show notes because I bet you that's awesome.
Robin Cole:	[16:58] It's adorable because Satya says, "Hello, Copilot." "Hello, Satya." "I'd like you to interview Steve and Bill and myself as an interviewer with some high energy and pithy questions." He was very specific. What you got to do, now we're back to prompt engineers.
DR:	[17:13] Give it context for tone and your role and all that.
Robin Cole:	[17:16] Exactly. And it did a great job and it looked like it was so much fun for them to do that. So that was technology in action.
DR:	[17:23] Yeah. Well, that sounds awesome. Definitely going to check it out. This was a great conversation and thank you so much for sharing all the amazing things that are going on in Microsoft.
Robin Cole:	[17:31] Thank you so much, DR, for having me and giving me the opportunity to share the great work that we're doing with customers and partners and how exciting it is to be leveraging AI in the telco space today.
DR:	[17:39] Yeah, awesome. [17:45] Stick around. We end each podcast with a "Telco in 20" takeaway. I've got two minutes to tell you something you need to know. [17:55] All the hot AI coding platforms, Cursor, Windsurf, Replit plus the hyperscaler environments are incredibly powerful, but they're not built for specific industries. They are horizontal platforms that can be applied to healthcare, retail, manufacturing, or telco. That means when you ask these AI tools to "optimize subscriber revenue" they have no idea what you're talking about. They don't know that a subscriber has multiple services each with different billing cycles, usage patterns, and life cycle stages. They don't understand the relationships between network events, charging records, and customer satisfaction scores. As a result, your developers end up spending months building this context into their AI applications from scratch. That's where Totogi's BSS Magic fundamentally changes the game. We've built the world's most comprehensive telecom ontology, every data relationship, every business rule, every operational workflow that makes telco unique, all based on TM Forum standards.

[18:58] For example, when BSS Magic sees something like subscriber churn risk, it automatically understands the connections between usage patterns, network quality, customer service interactions, and competitive pricing in that market. It knows which ideas work for which subscriber segments and can predict downstream revenue impacts across your entire product portfolio. It's not just about knowing telecom terminology, it's about understanding the deep complex relationships that drive your business. Things that take generic AI months to learn and years to master. Want to see BSS Magic turn your AI development tools into telecom powerhouses that think like your best people? Come see Team Totogi at NOVACOM Africa's 1-To-1 Telco Summit in Cape Town on September 23rd to the 25th. Connect with me on LinkedIn and X @TelcoDR and we'll set up a time to meet. Until then, tune to more "Telco in 20" episodes. Like and follow, and leave us a five-star review. Don't forget to sign in for my game-changing email newsletter on telcodr.com, and check out our awesome YouTube channel. Later, nerds.