

## Episode 35

### Azure has private networks, too!

Released February 22, 2022

**Danielle Royston** 00:00:00

I'm Danielle Royston and this is Telco in 20!

**Danielle Royston** 00:00:14

CLOUD CITY is back, baby! We're launching this podcast on February 22nd, 2022, the first day of our CLOUD CITY showcase. I'm super excited about it – more on that later in the podcast. Okay, I have a confession. There's so much going on in public cloud that it's hard for even me, telecom's number 1 public cloud evangelist, to keep up. When AWS announced its new private 5g network offering at re:Invent, the news kind of exploded in telco. I made a big deal about it being what I thought was a cool new thing. It wasn't long before my buddies at Microsoft Azure were on the phone telling me they had a private network offering, too. And it turns out that it's been around for about a year. There are real deployments out there and it's accessible worldwide. Who knew? So I stand corrected, and I wanted to learn more. Today on the podcast, I have Azure on to talk about their private network offering. I'm joined by Shirraj Gaglani, general manager of Azure's Private MEC group. Who's going to share all the details on what it is and what it means for telco. So let's take 20.

**Danielle Royston** 00:01:24

Shriraj Gaglani is general manager of Azure's Private MEC group. Welcome to Telco in 20.

**Shriraj Gaglani** 00:01:30

It's great to be here.

**Danielle Royston** 00:01:31

Awesome. So I wanted to have Azure on the podcast because you guys also have a private network offering and I didn't really know that. And so just to catch everyone up: Recently, AWS launched its private 5g offering at December in re:Invent; their big show, and Rick Lievano who's head of telco over at Microsoft, shot me a note when I put out some tweets about AWS is offering and Rick reminded me that you guys also have a private network offering. So tell me a little bit about that solution. How long has it been available and what makes it great?

**Shriraj Gaglani** 00:02:11

Yeah, I'd love to do that. So we've actually been working on the private networking space for almost three years now. And we've had several customer engagements and deployments that have helped us learn about this new market: the pain points that customers have, the aspirations that they've had that have allowed us to shape our investments, and our strategy in this space. And with that, we officially launched Azure Private MEC in June of 2021, where we created an industry first; bringing together 5g, networking, edge computing, an entire portfolio of partnerships in the networking domain; from network security, to software-defined RAN, to VPN gateways, and also the ability to bring these edge AI services, which are going to be so critical to drive business outcomes for private networks. So we announced that back in June last year.

**Danielle Royston** 00:03:03

And how are you guys offering that? I think AWS is offering a pay-as-you-go. Are you guys doing something similar in terms of the commercial offering of that service?

**Shriraj Gaglani** 00:03:14

Yes, absolutely! So this was the first cloud-managed offering for private networks in the industry. And so it does follow the cloud economics model. It is a pay-as-you-go cloud-managed model.

**Danielle Royston** 00:03:23

I think that's so great. It makes it a lot more accessible for enterprises; people who are not network experts, but need a network. Has that kind of been the customer response – it's like easier to use?

**Shriraj Gaglani** 00:03:34

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Absolutely. So if you think about what we've done, we've taken technology and capabilities that have been in the realm of the large telco for decades, stuff that costs hundreds of millions, if not billions of dollars to develop upfront over several years. And we're now packaging it up in such a way that the entry bar for an enterprise who wants to deliver a private network and run it on-prem is significantly reduced because they can't handle that economic envelope, if you will. And so delivering this as a cloud-managed model where you don't have these huge costs upfront, being able to consume it from concept to deployment in hours or days and not years is incredibly important. And that's what the cloud does for you.

**Danielle Royston** 00:04:20

Exactly, and I think typically this would require the purchase of hardware and network equipment, which is pretty complicated. I'm assuming, because it's a fully managed service, that's also included, right?

**Shriraj Gaglani** 00:04:32

That's right! Now, while we are cloudifying as much of the solution as possible, obviously there are some things like x86 processors or radio units, et cetera, that you can't necessarily deliver from the cloud. And so there will be some hardware elements that the customer will have to procure and install on-prem. And that's where a partnership model, which is a key tenet of Microsoft's principles in this regard, is incredibly important because we have found huge variation in the number of use cases and deployment scenarios that customers want to work with. And so a one-size-fits-all model is just not going to work as a scale motion in this market.

**Danielle Royston** 00:05:10

And do you have a preferred partner or as a set of partners that you're working with on the hardware side?

**Shriraj Gaglani** 00:05:15

We have an initial set of partners on the hardware side. On the Edge compute platform, it is an Azure-branded compute platform: the Azure stack edge that we offer today. But on the radio side, we have several partners that we've already announced who are working closely with us. And it's very important actually to have a vibrant ecosystem because all radios are not equal. So different deployment scenarios are going to require different pieces of hardware. The ability to expertly understand the customer's problem and purpose-fit the correct radio solution for that particular employment scenario is going to be incredibly important.

**Danielle Royston** 00:05:48

And so when this was operator-led, typically it was taking months and months. I don't know if it was six or more. How much is your solution? Are you seeing that you're speeding up that process and making it easier for those enterprises to consume a private network?

**Shriraj Gaglani** 00:06:05

Right, so we are absolutely obsessed about the metric of how long it takes to get the solution up and running. Currently we're at the state where once all the hardware has been installed and the radio units have been put in place, based on the customer's specific use case, we are able to actually deploy and get the entire network up and running with packets flowing and devices connected in a matter of hours.

**Danielle Royston** 00:06:28

Yeah, that's awesome and I think that's a big part of it. I always talk about how telcos sometimes are really hard to do business with and they need to figure out a way to make it really easy and turnkey and simple. And this is an example, both you and AWS; making the whole process a lot simpler and a lot quicker, and it makes it easier for enterprises to consume it, which is amazing.

**Shriraj Gaglani** 00:06:49

That's right!

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**Danielle Royston** 00:06:50

So I think AWS launched first in the United States. And so for Azure, is it available outside of the United States? And where are you guys seeing the most traction?

**Shriraj Gaglani** 00:07:00

We've been available on a global basis since last June. In fact, some of the first publicly announced enterprise announcements that we made were outside of the US. Governments have recognized around the world that industry 4.0 transformation is a national imperative, and in recognition of that, a number of countries have started mandating national spectrum policy in support of providing industry 4.0 or shared spectrum that can be directly licensed by enterprises in their countries. And Germany was one of the first to do this along with the US that has CBRS available today, Japan is coming on strong, the UK is doing it. There are eight European countries now that have the spectrum available and we have engagements in several of them and what we are seeing, especially in those countries where industry 4.0 has become a national imperative that the operators in those countries have found motivation and see the interest from the enterprise customers in wanting to roll out private networks for their different use cases. And so we're seeing a growing amount of activity around the world led by those countries that have been early in promoting industry 4.0 mandates.

**Danielle Royston** 00:08:11

Yeah. So let's talk about customers. AWS just announced this in December. So it's only been known by the world for, I guess, a month or so you guys have been out there a little bit longer. And so, are there some customers you can talk about and highlight of how they're using the service and how those deployments have gone?

**Shriraj Gaglani** 00:08:30

Absolutely! I pick on two of the announcements that we made publicly, obviously more to come in the next few weeks and months. So the first is with Tampnet. Tampnet is a specialty provider of communications for the offshore energy industry. So they help wire up oil rigs and wind farms in the North Sea, in the Gulf of Mexico. So what they do is, they turn an oil rig into a smart space. You know, we all remember what happened with the disaster in the Gulf of Mexico several years ago with BP. So these oil drilling systems are mission critical and the blast radius, if you will, if something goes wrong, can be quite substantial, not only to the company, but also to the local ecosystem and society. And the vision Tampnet has with private networks is to essentially use the reliability and the security, not just of 5g because they found that in a harsh environment like an offshore oil rig, Wi-Fi just wasn't reliable enough, couldn't scale to the potentially thousands and thousands of sensors that needed to be connected in a non-interoperable fashion on these oil rigs. And they basically took that very reliable, very secure, very scalable network technology, and then they combined it with Edge computing, so you can now do real-time analysis of things like faulty, structural pillars on the oil rig. You can have a real-time video analysis of worker safety and compliance on how things are going on these rigs. And they are now using the power of the Azure cloud and the AI and the analytics capabilities we bring with Private MEC to create real-time decision-making and to reduce the number of helicopter flights and technicians that they have to bring in to make the platform safe.

**Danielle Royston** 00:10:19

Right. No, it's like, have you seen that movie, Armageddon? Harry Stamper? He runs an oil rig and they come get him cause he's like the best driller. I'm going to send them up to space and get rid of the asteroid. They probably could have used this cause they're constantly blowing their pipes.

**Shriraj Gaglani** 00:10:34

Absolutely!

**Danielle Royston** 00:10:35

And so you said there were two, there was another one after Tampnet. There was another one that you had another example.

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**Shriraj Gaglani** 00:10:40

Yeah, just to give you a sense of how diverse the number of use cases are; the other one we announced last year was Bonn airport. So Bonn airport is currently going to be the largest private 5g network installed in Europe, and they have a huge number of use cases that they want to roll out once they have this 5g network up and running. You know, the initial use case was to reduce the cost and actually increase the level of security around the airport security perimeter. And so you can imagine you need a very reliable, very secure network. But then, the aspiration is to extend that into hundreds of different use cases to help with airport operations like: queue management at the security check-in line, baggage handling, aircraft logistics, right? How long is it taking for baggage to get loaded and unloaded? How securely is that being done? How quickly is the food crew coming in, right, and restocking the plane catering. Absolutely. So this is massive amounts of cost savings to be associated with building these smart networks, right?

**Danielle Royston** 00:11:47

Yeah. Everything from operations to security, to productivity of workers, it's super exciting and awesome. And so I think about the telcos, they talk about private networks a lot. It's one of their, maybe use cases in terms of 5g, this kind of explosion. And so our podcast focuses on telco executives, that's the primary audience. In your role at Azure, what do you think telcos need to do if they want to play a role in private networks going forward?

**Shriraj Gaglani** 00:12:15

That's a great question. I want to start the answer by actually addressing a previous question you'd asked about what makes Azure different, our approach to these private networks. It's our learning and understanding now that there is no one-size-fits-all because of the huge diversity of use cases. And so partnership and creating a rich, vibrant ecosystem of partners, whether they're on the device side, the application side, or even on the operator side; having a rich ecosystem is going to be incredibly important to drive scale motion into what is ultimately going to become a problem of mass customization; and we believe that the operators have an incredible opportunity and one of the most significant roles to play here. And it's not just because of the spectrum that they have, it's also because they are the masters of understanding complex and mission-critical wireless technology, but more importantly, their enterprise customers trust them. They trust them to deliver these capabilities. And so the learning of the problem statements end-to-end is going to be very well-consumed by the operator and then being able to translate that into what a solution looks like is something that they are incredibly capable of doing. So they have not just the know-how, they also have the reach and the trust of the enterprise customers.

**Danielle Royston** 00:13:38

And I think what's interesting is that, I don't know, I'm sort of new to this industry so I might be talking out-of-school here, but it comes across sometimes it operates sort of feel like they need to own the whole thing end-to-end. And I think something that you said earlier was about partnership, that sometimes partnering is going to be something that they should do and sort of bring their expertise to bear, which is their unique value proposition, but they don't need to own every single element in the process or the offering. And they could speed up their term to market. They could improve the relationship and experience for the customer and they don't have to buy the company to control them. They could partner with someone really excellent and bring their experience. So that's been my experience, certainly on the IT side, you know, they kind of want to own everything, they want to have everything under their roof, and I'm like, you know, the public cloud is such a great technology enabler that's going to make your systems great and make customer experiences really, really improved. And you don't have to own every single last server to do it. It's okay. It's gonna work.

**Shriraj Gaglani** 00:14:39

We understand why telcos are very concerned about the level of control they have over the network. Having said that, we believe that as we go through this new paradigm of delivering mission-critical networking through the cloud, as they get more comfortable with it, they will realize that they still have the ability to control the customer experience and the SLA behind it. But they will also find that they have now the ability to monetize a greater opportunity above the network layer. So developing a muscle to understand the customer's different problem areas, and then being able to develop the applications and business outcomes for them on top of that network is where the big prizes, we believe

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on top of private 5g networks. And we are seeing signs that the operators understand and they recognize that. They just need to get comfortable with how, what is being developed in this space from a networking perspective, can allow them to deliver their mission critical promises that they're used to, but they're going to get there.

**Danielle Royston** 00:15:42

Yeah and I talk about that all the time. I'm constantly imploring them to technically leverage their network, not just bundle connectivity, it's not just a marketing bundle. It's about technically leveraging their network. So it's interesting. So today we talked about and really and compared like, the AWS offering to the Azure offering. And I'm sure you guys are big rivals as I see earnings came out a few weeks ago and you guys keep creeping up, which is awesome and taking on AWS, but you and I have something in common: we went to rival schools. So I went to Stanford and graduated in 1993, and you went to Cal Berkeley and also graduated in '93. And so we have this great rivalry between our schools and every year, the last game of the season, I guess not including playoffs, we play a game called the "big game." And so have you ever been to a "big game?"

**Shriraj Gaglani** 00:16:32

I have. I've probably been to at least 15 "big games" over the last 30 years that I've been here in the bay area since I graduated. And the "big game" really became BIG on a national level after "The play", right?

**Danielle Royston** 00:16:47

"The play", yes!

**Shriraj Gaglani** 00:16:48

There is only one "The play." After what Cal did to Stanford and John Elway. I remember in 1982

**Danielle Royston** 00:16:56

Well, for people who don't know "the play", so it's probably one of the most well-known American college football moments where Stanford was winning, I think 20 to 19 with four seconds left and Cal got the ball back, and during the kickoff running it back, did five, I think five lateral throws, which is a lot. Usually there's one, maybe two, but five is kinda crazy. And they scored a touchdown and it was kind of very dramatic and chaotic because the Stanford band took the field. Stanford thought they had won and Cal just kept, I mean, I think they plowed over a couple of band members and scored, and there's still a lot of controversy around this game.

**Shriraj Gaglani** 00:17:42

You know, I've gone back and seen those five laterals many times, and I can tell you, there is no controversy. It was very clear. It was a legit touchdown all the way.

**Danielle Royston** 00:17:52

I still think there's two that are in question that we should review. If there was replay, it might've been a different call.

**Shriraj Gaglani** 00:17:59

Yeah, I was very fortunate. I think the Cal team, when I was an undergrad, there was probably the best in 50 years. And we came very close to going to the Rose Bowl a couple of times and I can tell you that the unhappy part of my tenure there was Cal didn't win a single big game in all my time when I went there.

**Danielle Royston** 00:18:20

And they won the whole time I was there. Cause we were there at the same time!

**Shriraj Gaglani** 00:18:25

Yes. But you know, as is our motto, you know, "The bear will not die and there's always next year." So we're looking forward to the next big game.

**Danielle Royston** 00:18:33

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Well, Shriraj, it was super great to have you on the podcast. And that was really fun to talk about the big game. So thanks so much.

**Shriraj Gaglani** 00:18:41  
Thank you very much.

**Danielle Royston** 00:18:42  
Stick around because we're ending each podcast with a Telco in 20 takeaway. I have 20 seconds to tell you something you need to know.

**Danielle Royston** 00:18:53  
And speaking of great competitors, Stanford and Berkeley, Azure and AWS: Telco execs, when are you going to realize that your real competition is not your next competitor in your market? Don't set your bar based on what he's doing. Instead, set your sights on what the world's best tech companies are doing, like Azure and AWS. They're providing frictionless experiences for their customers, both consumers and enterprises. They make it super easy to buy with a touch of a button, without purchasing any hardware. They manage it for you using a pay-as-you-go model. They give their customers what they want. Hmm...sounds kind of like Totogi. It's time to put yourself in your customer's shoes. Is it easy to do business with you or is it hard? Figure out where it's hard and fix it. Eliminate the pain immediately.

And speaking of things that are painless, it's time to get over to CLOUD CITY. It's running today through March 2nd. Head to [cloudcity.telcodr.com](http://cloudcity.telcodr.com) and visit with all the vendors showing off cloud-native solutions for telco. I'll be there with my three companies: TelcoDR, Totogi, and Skyvera. Watch my keynote about how NOW is the time to move to the public cloud. And the fun doesn't stop there! If you're a regular listener, you'll know that I'll also be in Barcelona at this year's MWC 22. I'll be easy to find, at my talk on Wednesday, March 2nd at 11:00 AM in Hall 5 Stage B. Come watch it! I promise you won't be disappointed. And as always, if you love this podcast, share with your colleagues and leave us a review. Don't forget to sign up for our awesome email newsletter at [telcodr.com](http://telcodr.com). You can also follow me on Twitter [@telcoDR](https://twitter.com/telcoDR), or connect to me on LinkedIn. You can call or WhatsApp me at 925-TELCODR. Hasta Barcelona, nerds!