Bonus CRSP06

Big Frontiers of the Telecoms Industry, Vivek Badrinath, GSMA

Capgemini

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[00:00:00] Uh, although you have just given me one of the best corporate insults ever, which is maybe you should try using AI a bit more.

Welcome to Cloud Realities, an original podcast from Capgemini. And this week it is a bonus episode, which follows up our telecoms miniseries that we've released over the course of this year. And I am delighted to say we've got the GSMA with us, and they're gonna be giving us a perspective right across the telecoms industry.

I'm Dave Chapman. I'm Esmee van de Giessen and I'm Rob Kernahan and as typical with our telecoms episodes, we have got our guest star with us. Praveen, how you doing? Praveen Shankar, good to see you. Not bad. Absolutely excited about going to a photography workshop for a week in the Isle of Man, [00:01:00] so cannot wait for that.

Wow. Wow, mate. You pulled that one outta the bag. Yeah, indeed. That sounds really nice. It is going to be a wildlife photography workshop. Oh, that sounds really fabulous. That's gonna be one hell of a slideshow.

Yes. Send everyone down. Now, the next, the next 2000 slides opener up one sea and there is no telecom connectivity in that place. I've heard. Let me see if there is one. Well, I, let's check that out. I think we might get some insight in this episode about what, you know, when, when that might happen. And I'm delighted to say that joining us today is Vivek Badrinath, who's the Director general of the GSMA.

Vivek, how are you today and where are you talking to us from? Hi, I am very well, thank you very much. Uh, I'm talking to you from our [00:02:00] headquarters in London, in front of the Thames. Wonderful. And it's a sunny day in London. Pretty much, yeah. Better than yesterday. Indeed. Yesterday was cold. It was unseasonably cold, wasn't it?

I thought it was all right. It was still a crisp day. Nice and bright blue skies. Completely blue skies today for me here as well. It's a lovely, it's been a lovely week. I made a terrible error though. I just sort of just the one Dave, just the one, just, just one at the beginning of the day. Anyway, I just went out in a shirt and it was, it was a little bit chilly by the end of the day.

I will say that you are, you are from the north of England though. Your genetics, I'm not built for it, so, so, but you should be built for it. You should be able to just go out in a t-shirt in the middle of winter. What you doing, Dave? If you've clearly softened in your older age as you've been down south too long.

That's right. Right? That's right. That didn't take very long. Pravin, frame us up what we're gonna talk about in this special bonus episode. You know, why don't I quickly recap in our podcast series, re-imagining the telecoms industry, we speak to a few of the brightest minds of the telecom industry to get their [00:03:00] perspectives on the why.

The what. And the how to change and reimagining as a context again, telecom sector is again and yet again at the crossroads. On one hand we see that digital is driving our economies. Telecom sector is the backbone of the digital economy and is a critical national infrastructures. Customers do trust telecom companies.

On the other hand, we see that growth has been elusive for the sector. Despite huge spend on networks, costs are high. Non-traditional connectivity providers are putting pressure, and finally, in the most alarmingly, customers see Telecos more and more as commodities. There is a need for the telecom companies to go back to the drawing board and have the.

Courage to re-architect and reimagine themselves across a number of pillars all at the same time. Growth, simplification, network transformation, data and AI regulation. Hence this podcast series one for each of these pillars. I'm truly [00:04:00] excited about today's bonus

episode as we have no other than Vivek Badrinath, the director general of GSME with us.

Thank you for joining us. We are absolutely delighted off you, Dave. Before we dive in to the subjects that we're gonna talk about today, let's start with the GSMA generally and what it's, what its role and purpose is. Vivek, do you just wanna frame that up for people who might not have heard about it?

Yes. Thank you very much. The GSMA is the industry Association of the mobile industry. GSM, was founded close to 40 years ago, and since then, the operators have, uh, started to work together and as. We are their industry association. We take care of a number of things for them. On one hand, there's still a lot of technical work to be done on many aspects.

And, uh, of course the GS MA has been at the heart of making the roaming ecosystem work, uh, working on the standards and the technology. So we run. Close to a thousand [00:05:00] meetings a year, bringing together about 6,000 people on a number of technical areas that are intrinsic to the, the mobile ecosystem. We also advocate for our, members through, I would say a whole policy framework.

We engage with governments and regulators to share the practices that enable the industry to progress and grow. So we tell them when there are certain policies that work better. And, uh, we, we, we demonstrate the importance of mobile connectivity in general for the economic growth of the countries. When you have a strong and thriving mobile industry, the digital ecosystem is able to develop on top with, applications, with services, with customers who are able to take part in the digital economy.

The third thing we do and we do at scale, is a role of convening as a platform with our events. The most well known one is the Mobile World Congress, MWC Barcelona, which is the, the largest event, [00:06:00] uh, in this sector. It's, uh, this year we attracted 109,000 attendees from 205 countries. And it's not just the mobile industry getting together to meet with itself.

It's 60% of the attendees come from adjacent industries. Yeah, yeah. And they come to engage and dialogue with the mobile industry. We, the next event we're having is MWC Shanghai. We are also very excited about. Doha that we are opening from this year and Kigali where, uh, we bring together, uh, those interested in mobility in particular for Africa.

One of the things that really struck us in the, in the couple of times that we've been to the Barcelona show, um, is how broad it was that it turned more into a broad tech conference than it, as much as it was a, a, a mobile or telecoms conference. How intentional was that scale? Very much. Very intentional.

I think you're spot on, uh, for it's getting a, getting the association to meet with itself is, is not what is, uh, what we're [00:07:00] trying to do. Barcelona and all the MWC event series are places where business gets done and business gets done between different parts of the value chain. You have suppliers to operators, but you also have.

Users of connectivity solutions, looking to work with the mobile ecosystem to define the right solutions. And if you look at the MWC Barcelona event, it has grown and expanded over the years to new dimensions. In fact, you have the core conference or uh, which is a huge stage for dialogue around what technology is doing.

But you also have meetings, commercial meetings. You have a whole startup scene with our four years from Now event, which in one hall brings together more than thousand startups and more than 50 billion assets under management to dialogue around how to develop the future new technologies. We also launched [00:08:00] Talent Arena this year.

Bringing in young people who wanted to get exposure to what's going on in the tech world

to evolve their careers. So I'd say it's, it's a platform. It's an efficient platform where people like to come. It's the rendezvous at the beginning of March for, uh, for this whole industry, which is being read in a broader and broader sense.

We also meet industrial players and. As you remember, 5G has a lot of industrial applications, which means that the car industry, the aeronautic industry, right, industrial factories, ports, they will need more and more connectivity for their business. And they come to our events to talk to the players of the connectivity systems.

One of the things we thought was a very resonant theme, whether it was. Something that was just emergent, or whether it was an intentional theme, was the notion of sovereign AI and how sovereign AI and just data [00:09:00] sovereignty and cloud sovereignty in the current geopolitics was really reframing a little bit the role of the of the traditional telco.

I wonder if you'd observed that or whether you had any thoughts on that trend. Yeah, I, I'd say the, the AI revolution, uh, is. Is a core part of what is impacting the telcos. And the telcos have been quite proactive in this. There are a number of geographies where the telcos are key players in, I would say the uh, uh, the provision of digital services, and they are indeed very linked to sovereignty issues. Why? Because they're regulated. Because they're local, because they don't get, yeah, they've got this, they delocalize themselves out of the country. They, they can't just migrate themselves completely to the cloud in another place. So I think this, the telcos definitely have an important role to play in supporting the development of ai.

Many countries have [00:10:00] concerns and are asking questions. You see the matter of sovereignty in Europe with the different standards and the creation of, of various sovereign ai, uh, technology stacks. Uh, and and I think that's a and typic and, and typically telcos. Are interested in these, uh, in these opportunities because they feel they can play a, a role and they are a trusted partner, both of governments and of enterprises.

Uh, and that's, that's positive. At the same time, there will be co localizing. A data center in each and every country may not always be possible because of infrastructure requirements. So the free, free movement of, of data remains a question that needs to be addressed. Um, on that sovereign ai, what do you see as the role of the telecom sector?

Is it just to provide infrastructure or go beyond that? Uh, if you look at the B2B space, I think it's fair to say that telecom operators [00:11:00] have long been a trusted partner of many enterprises for many of their digital needs. So I think they are a legitimate part of that conversation. I. When you look at cloud services, when you look at, uh, the, uh, helping companies to connect and transfer their payloads to the cloud, you do need to look both at connectivity and at storage and compute, and it's that simple.

So are they part of that triangle of providers? Uh, I, I think so. Uh, indeed it's infrastructure, connectivity and structure infrastructure, but it's also services on the B2B side, and it's also in some cases hosting and uh, and security. We do a, a paper every year with tech trends and one of the big trends that's been emerging for the last few years is everything connected everywhere, all at once.

And it's the role of the merging of the concept of connectivity and compute. And this again, puts telcos right at the heart of digital futures of. Countries and basically your [00:12:00] compute doesn't really work as well as it should if you don't bundle it with the connectivity and the concept of, you know, you know, fixed and, uh, wireless and all that sort of stuff.

I think the telcos are starting to realize that, and the B2B point coming up is there's a different market for them to enter into. There's a diversification of services that they can

offer, and I think what I saw at Mobile World was a, a new excitement about. Getting out of the traditional role that they play and into something much more progressive towards how it benefits the macro system.

And I think we're seeing a lot of moves in the industry around that. I'd be interested in your perspective on that diversification of the business portfolio that they, they present back to the market. Well, I think the, the, with with 5G there's been a lot of thinking about what the network can do more and that obviously means.

That you need to understand what happens, what it's used for. And if you look at slicing, which allows you to look at mission critical applications, if you look at the low latency of 5G, which allows you to, for instance, [00:13:00] uh, do a quick turnaround on sensors or uh, or on images that you see and, and feed ai, I think the network had has a lot to offer that we hadn't thought of before.

So it's not just connectivity, first of all. So the network can do more. And then operators then can do more in terms of, uh, of leveraging the, the power of ai, in particular on the compute side. And we see a number of initiatives from operators, both for their own needs, but that's one thing that, which is very important 'cause we're a big.

Tech intensive industry. Hmm. And so using AI to do our job better is, is obviously a, a, a, a good step. You, you work on improving operational efficiency, customer service, uh, internal processes, that's all that, that, that's there. But moreover, there are a number of initiatives that, that are taken to, I would say bring the power of AI to, to the customers take for, and, and there's some subjects that.

Actually operator, Scott first, if you look at, [00:14:00] uh, for instance, language there, uh, AI has been largely designed by the big players on, uh, languages such as, I would say, English, French, Spanish. That's fine. Uh, when you start to go to, uh, languages that have. Less speakers. Mm. Uh, if your AI has a very basic translation mechanism, the quality of of your inferences is, is actually pretty bad.

Hmm. Uh, and, uh, and what we did, for instance, uh, we, we discussed this with the Barcelona Supercomputing Center and, uh, Von went and developed the Cas LLM, the Kazaki lm, which. Is actually very precise and efficient for the Kazak language. And you have a number of initiatives in that area. And as you know, and you do notice that operators are typically interested in these initiatives because they're relevant for their domestic operations.

Right. I, I just want to, uh, take a step back and go just briefly back to the role of the GSMA. And you [00:15:00] talked about one of the major roles that you play is, is connecting up mobile operators in a way that that creates kind of inter, you know, con connectivity, interconnection, et cetera, et cetera. I wonder in your head, I.

How close to perfect we are. Like when you, when you look at that situation, what strikes you as, oh, we've really nailed that, that's working really well, and what strikes you as missing or not working very well at the moment? And, and what upside would the consumer feel for fixing some of those problems?

Now, I would say we, we, we've reached, I mean this industry has reached a certain level of maturity. I think we, every time you get off a plane in a different country, uh, you can't help but think, okay, this is not bad. I've got access to my email and it's sitting in a server, the other side of the world, and.

It pops up on my phone before I even reach customs. Right? So that, that's, that, that's

something that, that I think this industry has done overall pretty well. But it, [00:16:00] it requires ongoing work to make put in place the, the roaming, uh, the roaming agreements. And every time the standard evolves, every time we add new features.

We re we have that challenge again of making it work across operators and across countries. So at one point it was phone calls needed to work, then SMS needed to go through. Now it's data that needs to be seamless and it's voiceover, LTE. So the, the new voice, uh, technologies, they need to work in roaming.

So the jobs never completely over. There's always things to fight tune, and then when devices develop new capabilities, when EIM comes in, there's always things to do so that it works well in the same way across the world. So it's a, I would say it's an, it's an ongoing business that we, we try to evolve on top of this, we do have a lot of activity as well to ensure security of our systems, because the other part that is ongoing is that you will always have threats that you need to plug.

And this, [00:17:00] and working as a community, working as an industry with a common, I would say, motivation to provide security to our customers and ensure the, the trust in the, in the industry is means that you put in common the information you get. I. So you don't keep to yourself a threat that you've seen. You share it with the, uh, with the other operators so that they can also fix and, uh, and protect their systems if, if there's an attack.

So I think the whole security angle is one where we pal, uh, play a big role, and that's an. Sadly, that typically is a never ending story because there's always new threats and new attacks on various bits and pieces of the very complex ecosystem that serves 7 billion people today. You are certainly right in saying that it's easy to take for granted the kind of ubiquitous access and the very smooth.

Transition between geographies and different networks and things like that. But there, there is another aspect to this isn't there, which is that the digital divide, which [00:18:00] is when you know, when you have this technology, you forget that you're privileged to have it. And actually there's a, a whole section of the world at the moment that doesn't.

So what's the current state of that? That is actually one of the biggest areas of, uh, I would say both hard work and opportunity for us globally. There's 3.45 billion people. That's 43% of the global population who do not use the mobile internet, so they're outside. That's what we call the connectivity gap.

Now, when you break it down. Three 50 billion people, and that's just 4% of the global population. Still a lot aren't covered by mobile networks at all. Mm-hmm. So that's what we, we would call the coverage gap. There's no mobile network where they live. That's 4% of the population, three 50 million. So it's big.

But it's, it's only one 10th of the 3.45. Right, right, right. So [00:19:00] my math is not quite precise, but that gives Don't worry, the scale, don't worry. I I'm not gonna pick you up on it. It's early in the morning and Yeah, it just went right past me. You bang on. Yeah. This isn't a podcast known for, uh, detail accuracy.

Yeah. The numbers are pretty much there, right? It is. So that means there's 3 billion, 3.1 billion people who live who, who have mobile coverage. There is a mobile signal where they live, but they're not using mo, the mobile internet. That's nine times more so. Just to, so it's when you're discussing, oh, but we need to bring mobile to everyone.

The first thing is bring mobile to those who have coverage and also address the coverage gap, uh, through any technology that's efficient to do that. But that's only 4% of the

population. Now, if we were to be able to close just the usage gap, that's the 3.1 billion people who. A smartphone, if they had one and they had [00:20:00] the, uh, skills and will to do it.

That's 3.5 trillion to the global economy by by 2030. Wow. Uh, in particular in low and medium income countries. Hmm. Uh, so, so that's a lot of money. That the economy could benefit from because they would be using mobile internet, like other people to access services, to provide services, to access knowledge, to access work, uh, and, and improve their, uh, uh, I would say their activity by joining the digital economy.

So two other things, uh, women. Are overly affected by the, both the coverage and the usage gap. In fact, there's about 19% more women that don't use the mobile internet than men. So that's, there is a gender gap within the usage gap and, and. Actually the reasons are well known. We studied this in 2024. And boil down to what?

[00:21:00] Affordability of devices. Yeah. Big area. So when you see countries that still tax smartphone as, as if they were luxury items, when in fact they're, they're now very low on the Maslow pyramid. There's something that people need to be able. To, to access a good part of the economy, government, education, health services in, in many geographies, including the, the, the emerging economies.

Well, taxing, taxing phones is not a good idea. Finding cheaper phones and cheaper financing models are indeed very, very helpful to, to bridge the, the usage gap than their skills. Uh, and so we, we provide internet toolkits to help people understand how to use the mobile internet safely and, uh, effectively so that they can, you can do something useful with it.

Mm-hmm. There's also, in some cases, lack of local language. Services that make mobile internet relevant. So their big effort as well on our side. And [00:22:00] then, then you have, uh, issues such cultural issues around, I would say online safety. And that's also an education matter that we try to promote. So that's, that's.

That's where we, we take a, a, a keen interest in the usage gap by addressing these various pillars and certainly affordable handsets. The financing of handsets circular economy with the transfer of handsets that have been used, and, uh, then refreshed, ref refurbished, and can be redistributed. Uh, the accessibility of lower cost devices with, with adapted specs.

These are all opportunities for us to bridge the, the usage gap. And when you say that the amount. That this technology can add to an economy. It's strange that they want to tax, they should really go to subsidizing to boost the economy. So it's turning the concept on its head and saying, we need to connect our population because actually it's going to do so much more.

I. For the country, and I'm wondering when that shift might occur, is that, I mean, it's the, there's a very clear [00:23:00] argument to say, look, everybody should have this capability, let's use it. But it's just, it's the, it's that mindset shift that needs to happen within those societies to say, yes, we should be there.

We, we are partly on the path. I mean, South Africa seems to be ready to remove the luxury tax on expensive smartphones. First example, MTN uh, just announced devices at $5 for customers. Wow. To, to drive, uh, which means that there is financing subsidizing and, and so on. Going on. Yeah. To a certain extent, uh, not all countries are as far, but this is our, this is our campaign.

This is what we advocate across the, uh, the, the African continent across Latin America, across the Asia Pacific, because, uh, and we are getting. A good understanding, but then

it's about implementing programs that are. I would say, uh, reliable enough that the benefit does go to the right people and is used in the proper [00:24:00] way.

Right? So that's, that's what makes it hard. But, but governments understand it, but then sometimes the harsh reality of taxation and balancing the budget stops them from going there. So it's our job. To go and tell them, well, this is actually priority one. If you do this, your tax revenue will go up in the future because your economy will grow.

But that whole cycle is what we, we spend our time convincing them on Vivic. What role do you think the satellite companies can play in bridging the digital divide? So you'll recall that in my mathematical breakdown of the, uh, connectivity gap, uh, there's three 50 million people who don't have coverage.

So in that space, if satellite can be, I. Available. There's certainly a benefit, so let's get it right. Satellite is a, and the progress that's been done on the satellite industry with which we've been working for many years, both [00:25:00] because we work on spectrum, but also because we simply, many of our, our members have partnerships with satellite companies.

Satellite is a very relevant technology to reach those places that mobile has not been able to reach so far. Hmm. And by not able, I mean it was not affordable. It was not, uh, economically relevant to go and put an antenna in a remote area for very little traffic. But those 4% of the people live in places that are typically sparsely populated and, and often difficult to reach.

So, so satellite for the three 50 million people who have the, who are in the coverage gap, there is relevance there, but. Let's understand. These are also often places. I mean, in some economies, some economies is, is they're, they're sparsely populated by the people have the means to buy devices and equipments.

But in the emerging economies, typically these are the [00:26:00] affordability of devices that work with satellite becomes this, the, the immediate second question. When, when you look at a, a timeframe for. Maybe not closing the gap to zero, but say halving the gap that you describe, what kind of timeframe do you think we're talking about?

Is it, is it years? Is it decades? It's years. I hope it's years. That's what it look at the way this industry has evolved. I think when you start to see $5 handsets in, uh, in South Africa, when you see governments one by one saying, yeah, we need to do something about it. When you see the. Affordable Device Coalition that we are part of together with the World Bank, with the ITU, there is a movement that is collecting momentum.

Yeah. So I think there is a, there, there is a will to execute this. And this industry has done some pretty remarkable work over the years. I mean, it's reached it on a common standard. We've got 7 billion people using devices to access mobile networks that are built on, on pretty much one technology. Yeah, [00:27:00] it's that, but it's that thing about the we've, we've sat and so to today's point, you've gone through a lot of mobile phones.

We've had the privilege of this for such a long time. We've seen such a, a, a, a big iteration in the capability of the devices, and yet it's still stark to think there's so many people out there who don't have access to the most. Basic of capability that those handsets, I mean, if you go anywhere in the world, going back to your roaming point, my phone can connect and I get services that if I didn't have, would be a bit perplexing.

So like just the simple mapping applications that the geo, the geolocation provided through the device that converged, then the mobile internet to load the data, the ability to search and find. Without that, it's much more difficult to get around the world. And yet. And not only that, Rob, when, when, and I know you don't do this particularly, but when, when things

like your visas and you know, your travel documents and your travel requirements and the things that you have to do, like during COVID for example, when you had to go through kind of checking process, all of that is online.[00:28:00]

It's all device centric, isnt it? So you, you are disadvantaged very significantly. It's not just that you can't get to, you know, kind of funny cat pictures. You, you're fundamentally disadvantaged in terms of the things that you can do. No, that is the point. Yeah, that is the point. If you look at education, access to education, access to health, and because in, in advanced economies, indeed being locked out of the digital economy is, is really a, a, I would say a.

A. A big, uh, a big handicap. Mm. Uh, in, uh, in emerging economies. It's, it's simply accessing jobs as well, or trade Right. Or mobile money in many cases, which means the ability to transact and and actually earn a livelihood. Yeah. Yeah. Exactly. Well, look, let's move on a little bit and actually just talk about the, sort of the technological advancements that's going on within telecoms itself.

We obviously talked about what AI is doing. We touched on that briefly earlier, but when you goes forward. Five years. What do you think the kinda other major disruptive and [00:29:00] emerging technologies are? Well, we discussed AI and I think indeed we are at the beginning of measuring the impact of AI into, into our industry.

Indeed. Uh, both inside and also the impact on our industry by, of the growing usage of ai. So I think that's, that's definitely front and center. Another area indeed is, is the satellite, uh, the progress on satellite. There's some new services that were not possible a few years ago that are becoming.

Possible such as direct to device. Uh, and a number of operators are looking at that. Why? Because it, it helps take care of the coverage gap. So rather than building expensive towers in remote areas, well customers use satellite for emergency calls typically, or short calls. Or short messages. And indeed, uh, for, for other.

Uh, applications such as sensors, telematics, and so on. In the next release of, of 5G there's some, there's some services that can be used also over satellite. So [00:30:00] there, so we, we continue to work to leverage the extra coverage that satellite brings to, to, to enhance services. And then there's about, as of February, there are 99 telecom operators who already provide satellite connectivity through one or more partnerships with satellite companies.

So, so that's becoming. A part of, I would say the telecom operators offering for all natural reasons, also because we understand it. So we've got quite a few partnerships there. But I'd like to, I like to say the, the rest of the, the other big trend that I think we need to embrace very strongly is opening the mobile ecosystem.

Why? Because, right. Applications will not rely uniquely on connectivity, but they can definitely be stronger if you have access to some of the services that the networks provide. So our Open Gateway program is extremely important to us. It's really one of the big initiatives. Why? Because this is an area where by leveraging the [00:31:00] capabilities of networks more strongly, many more positive outcomes can, uh, can be delivered.

By partners, by developers, by IT companies, by service companies. Just characterize that a little bit for me from the consumer perspective. So how, how would it show up to me? I. So, uh, le it is, uh, uh, I mean, you, you, you know the API economy. So you don't sell an API to a cust a consumer or otherwise. Uh, otherwise there's something seriously wrong with your business model, right?

True. Unless you're a very specific type of consumer. Uh, consum customer, yes. Consumer, maybe not. Uh, APIs are offering the ability to developers to access deeper resources in the network. So I'll give you two big examples just to illustrate the case. If you look at fraud and scam, for instance, we, we have a number of APIs that work on.

Checking. For instance, if a sim has been swapped, which is typically a case where a phone [00:32:00] that's been stolen is used to do transactions using your bank account or a silent identity checking, which allows you to check that, uh, without having to go through the whole, send an SMS, uh, retype the number, et cetera.

Uh, we've got a number of APIs in, I would say the fraud and scam space, which, uh, which. On their own, won't protect you completely from fraud, but shared with the bank, shared with a financial partner, help them to do the score and, and launch the flags and alerts that say, wait, this thing doesn't work. So in the UK for instance, with the banks, we have this fraud and scam alert system where.

Typically when you have, uh, an application push, uh, payment, if there are things that we see through the network that don't look right, that helps the bank to say, wait, this thing doesn't look right, let's not let through this payment. So that's the whole space around [00:33:00] identity, location, uh, all the information that we have from the network that allow you to.

Typically work on the legitimacy of a transaction. Another example is quality on demand. With the, uh, with the features that 5G brings, it's also important that developers be able to, I would say, access higher quality systems, higher quality, uh, uh, network capabilities for specific needs. You're sending, you are, you're, you're a camera operator for a TV channel on a live event.

The camera that is filming the main picture should get all the bandwidth. Right, which means you need to be able to ask the network, make sure I have the fastest connection on this camera. And uh, and at that point you give them quality on demand. But it could also be for a payment system. You've got payments, you're processing payments.

People are walking past you for a big event, and you're. You are, you're selling every [00:34:00] five seconds. You really don't want to be waiting 20 seconds to process an approval on a credit card. Mm-hmm. So for that time, for that device, not huge bandwidth, but good latency and, and, and certainty at least that you have enough bandwidth to get your transaction done.

You get it from the network by accessing an API. These are just two examples and I'm trying to describe what it does for the consumer at the end, but of course. That's not the network and it's not the consumer. In between you have people who are building applications that use these solutions. So we are opening up to offer our capabilities as an industry.

We think it's a huge opportunity and we're rolling it out country by country with operators, uh, getting on this bandwagon because it's an opportunity for the whole ecosystem to grow. Yeah, so on that one, Bibec, this is absolutely agree. This is a great opportunity. Do you think that the execution of this is going at a speed that you would expect and what [00:35:00] telcos need to do to execute it quickly and also make it easier for their consumers to, to consume that information and data?

So we, we are doing, you've seen APIs, I mean, um, API programs are typically, partly evangelization, partly training, partly ease of use and consumption. Uh, and, and there's been a lot of progress done on this program since the last two years. But one of the keys indeed, and we recognize it as an industry, is that all operators in a country.

Need to be, need to be using the same API, and that's the journey we're on. We're working on champion countries that where all operators do it. Why? Because otherwise it's, it's not as efficient for people who are using the APIs. If I'm a bank and I use silence authentication, but it only works on two operators and not the third one, well then I need to provide another system for [00:36:00] customers of the third operator, which.

Makes it much more clunky or less convenient to to implement in my systems. I think one of the keys is indeed that the country operators need to offer similar syntax APIs to people who want to develop services in their markets. We have done a lot of work to standardize them. We are using the Kamara framework, which is, uh, community, uh, which develops these APIs so they are the same, uh, across the world, which makes it easier for developers.

We. Present and drive training sessions around this for developers. We do hackathons with them during our events, so there's a pretty strong open gateway activity typically in our events, but it's also at a local level that needs to be done. We've actually worked on the demands generation as well.

Through a program we call Fusion, where we work with different industries to aggregate demand [00:37:00] because they have similar needs. Take the banking industry. Of course, when uh, banks have similar issues in terms of fraud and fraud protection, we try to. Look at solutions that can work for all of them and, and evangelize in codes or let's say, explain, share and, uh, and disseminate, uh, case studies to, to help people to, to pick it up.

I'd say the momentum is picking up as we are reaching more and more countries, 70% of the connections on the planet are provided by operators who've started to offer open gateway, API. So it's not that the, the, the machine is not moving ahead. So collaboration within the sector. Is extremely key and especially within a country to make this happen.

I think that's a, that's a great point. Beyond, uh, you know, the collaboration across the ecosystem within this sector, we have to collaborate and, and we have to work on both and, and we are definitely motivated to work on both. I wanna maybe bring today's conversation to a bit of a close by talking about another deployment, which from a consumer [00:38:00] perspective does seem to have been going on for quite some time now, especially in terms of getting the full benefit of it.

I wonder what your take on the 5G. Rollout is and where you perceive we're, we're up to and what the challenges have been in, in deploying that technology. Yes. I think 5G uh, let, let's remind ourselves what 5G does. Mm. 5G is a technology that followed on the very successful rollout of 4G, which was the technology used to.

For mobile broadband, for, for the generalization of mobile broadband across the planet. And I think we know what that did. It was the first one that really felt like a step up in performance when you as a, from a consumer perspective, from an advanced consumer perspective, you are absolutely right. So you, you, you were frustrated that your phone was not quite fast enough and 4G solved that.

So indeed you, you felt the difference. 5G was about two things. A bit more spectrum. Indeed in the 3.5 gigahertz band, in particular, in several geographies, uh, on [00:39:00] average. Uh, and that was why, because 4G was successful. So you needed more bandwidth, right? Uh, because people were using it a lot, right? And, and the growth was high.

So we needed to put more spectrum to work for mobile broadband. So that's one aspect. And that's largely being used, right? It's that, that that growth curve is progressing and as it progresses, the 5G spectrum is being put to very relevant use on the B2C side. But it's not a

sea change in candidly, you are getting mobile broadband slightly, slightly lower latency, so quite nice.

Mm-hmm. But, but, but not life changing. The real benefit. Of 5G and it was designed that way, was around enterprise applications and that's why 5G embeds technologies such as slicing, such as REDCap, that's coming forward for low power IOT devices, uh, has the ability [00:40:00] to, to, to cover, uh, private networks in certain cases, lower latency.

All these things are really more for the enterprise. Mm-hmm. You, you, you well know that enterprise applications have a different rollout cycle than, let's say a global launch of a new device technology. If you launch, if you say, all, all my high-end phones are going to be 5G from now on, and you advertise for them and say, your life will be better with, with 5G phones and, and they've got new features.

Over a few years in advanced economies, you're going to get a pretty high adoption of 5G for enterprise bringing slicing. But that means also going through the whole cycle of putting in place standalone 5G, which is the one which allows you to put all these features to work, uh, that takes longer.

Because you, you can put the connectivity solution, but if nobody is building the [00:41:00] application on top, it takes longer. And so I think we, we are very clear that 5G was going to take longer to achieve its full potential because there's simply more people on the chain that need to do some work to use it and consume it in the proper way.

That's why we do Open Gateway as well, because Open Gateway is one way to. Project or let's say put forward the 5G capabilities for, for people who use them for business applications, but you need integrators, you need uh, software developers, you need industrial players to really use 5G to its full potential.

You need to roll out five Gs a and that's indeed only partly done at the end of 24. There were 326 live 5G networks globally. Of which only 61 were 5G standalone. So that's the next big thing, and that will drive 70% of the enterprise revenue expansion for the industry to 2030. So that's the next hurdle in [00:42:00] codes getting through rolling out sa.

And, uh, standalone and then using it, activating it for, for real applications. Uh, but it was always destined to take a longer time to reach for potential. In my view,

what you've been thinking about is, well, I've actually been thinking about mobile world. As we've been talking about it as well, uh, in, in, in this conversation, the power of the ecosystem. I think that was one of the things that we actually felt when we were in Barcelona, uh, opening up the ecosystem. So I think that's, that's wonderful.

But I think I'm also very intrigued by what Felix would just mentioned, uh, if there's already so many people that are able to have internet, but they're not using it. Then you're really talking about a usage gap, right? Maybe even an empathy gap. 'cause you're touching upon culture constraints. So many [00:43:00] elements that tech is probably not gonna solve, or at least not the tech itself, but you know, the way we actually make it impactful, that's where the real magic happens.

So I was wondering how do you shape that ecosystem in terms of not, you know, that you're not building it for them, but with. Them. So with community builders, with teachers, uh, with, you know, community builders even on the site on spots so that they can actually co-design relevance. And I'm really, you know, I think this is a thought I'd like to explore.

Could empathy become a strategic KPI for teleco? And how do you see that happening? You know, what's your thought on that? Fifi? Uh, I think you, you're spot on. And one of the

programs that we are very proud of is our mobile for development program. So we have the GSMA foundation working on micro projects with local players.

Mm-hmm. And a lot of local startups that build applications, uh, in le. Medium [00:44:00] income countries. Uh, so it's, we have a lot of work in Africa and, uh, and Asia Pacific in particular, Bangladesh, Tanzania, across the African continent. Really a number of, uh, geographies where we bring together an operator, a startup or a technology and a community to go and roll out these solutions.

What it does is it, it gives real. Localized proof points. So it's not that we are pushing, please have a smartphone, because you can do lots of fancy stuff that we do in Europe or in the us. Uh, but it's about, this is relevant for you because you're into farming, into agri or, uh. This will help you, uh, when, uh, when you need access to medical advice and you're in a remote area.

This, this will give you access to educational material. All these areas are, are, are areas where we work. We've also been quite successful with mobile payment, which is one very good reason to bring a phone into the hands of people and then [00:45:00] help, and then, and then they can walk up the, the chain of, of, of more, more applications.

So I'd say a mobile for development program is, is one of our prides. It's been effective, it's been effective with local entrepreneurs, and I think that's been a big part of its success. And we continue to, to, to do calls for proposals, to look for new companies to support, especially in their initial phases, so that they, they can bring solutions to, to these economies.

To justify, I would say, to bring more reasons too. To bridge the, the coverage gap, the, the, the usage gap. And I think, I mean, there's a, there's a really good point there, which is the, when we sit in our context, it's obvious to us, but the ability to make payments. Mm-hmm. Yeah. Mobile technology facilitates a completely new way of business interaction where you can get away with the traditional and its second nature to us, but sometimes you forget the fundamental things that might be missing in certain societies that this technology can bring to them.

And you know, we, we said back the trillions. Of potential [00:46:00] untapped just through the addition of these basic digital devices. Absolutely. And I think our queen or our Dutch queen, uh, is a very huge fan of, uh, micropayments. And that opens up so much possibilities also for women to start their own businesses.

You know, that that's a life changer in itself. And I think that's a beautiful example of how tech can really be impactful, uh, in in those, uh, in those countries. Yeah, the, the fundamental enabler to so much more potential, isn't it? But you forget this, this building block that once it's there. Can create so much potential.

It's, it's, it's, and for us it's like, it's like water, right? Yeah. It's just there. It's just, we just know it's there. You switch it on. Yeah. When the mobile phone network goes down, which is very rare these days, it's hugely resilient from that perspective. But when it does happen occasionally or you get a blip or you're out of coverage, you see the frustration on some people.

It just go, ah, I need this service. It's gone. Indeed. Indeed. I think we, we, we've, uh, the, the period during COVID and, [00:47:00] uh, has shown how important it was to keep the, to enable to keep the lights on hundred percent and to keep society moving. And I think that's, that's been a, uh, that's been a, a big realization.

Well look wonderful to get such a broad and deep insight into the, the, how the entire

industry is functioning and how it might evolve and some of the things that it does at that you might not expect. Just like that last bit of conversation. So, Vivek, thank you so much for spending some time with us this morning.

It's great to see you. Pleasure. Now we ask. All of our guests at the end of this podcast, what they are excited about doing next. And that could be a professional thing, uh, or it could be a personal thing. Uh, so Vivek, what are you excited about doing next? Excited about our next event. I'm going to touch Uzbekistan next week.Uzbekistan, wow. That's in it. That's a region of the world where there's, uh, a lot of growth. And initiative. And, uh, I'm looking [00:48:00] forward to meeting with the policymakers, the operators there to discuss how we can, uh, double down on the digital ecosystem there with all the new applications that are changing society in, in the Central Asia region.

And, uh, looking forward to the trip. Looking forward to the beautiful country of Uz Pakistan and being in touch can again. Yeah, I always like trying food when you go to a, a new, uh, destination like that. So yeah, wish you very well. Thank you. If you would like to discuss any of the issues on this week's show and how they might impact you and your business, please get in touch with us at Cloudrealities@capgemini.com.

We're all on LinkedIn. We'd love to hear from you, so feel free to connect in DM if you have any questions for the show to tackle. And of course, please rate and subscribe to our podcast. It really helps us improve the show. A huge thanks to Vivek, our guest host, Praveen Sounds and editing Wizard, Ben and Louie, our producer, Marcel well.

Let's not start with that. This podcast, and of course all this, not this podcast. You can, you can strike that from the record for this podcast. Let's be honest. He added negative [00:49:00] value. He's with us in hard and mind, massive negative value. Yes, but he's with us. That's not you. You're okay, Marcel, and of course, to our listeners, see you in another reality next week.

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