

Podcast Transcription: Exploring eSIM Benefits for India's Digital Growth

[Mohit] (0:07 - 1:08)

Hello everyone and thank you for tuning in to yet another episode of The Counterpoint Podcast. I am your host, Mohit Agrawal, and today we will talk about one of the companies that has been named a leader in Counterpoint's eSIM rankings. In our previous podcast about eSIM, we spoke about global eSIM market, innovative business models from various companies, eSIM testing, interoperability, and much more.

Today we are going to talk about eSIM opportunities in one of the fastest-growing markets in the world, which is India. And for that, we have a special guest from Kigen. Kigen is a fast-growing scaler, renowned across the industry for its eSIM enablement, and the company that pioneered the iSIM technology.

Kigen has a strong presence in India, and its preview spans operators, module bakers, and semiconductors, and OEMs' direct engagements. Please welcome Bee, who is the VP of Marketing at Kigen, and Mayank, who is VP Solutions at Kigen. Hello, Bee and Mayank.

Welcome to the show. How are you doing today?

[Bee] (1:09 - 1:11)

Hi, Mohit. Thanks for having us.

[Mayank] (1:11 - 1:12)

Hi, Mohit. Good, thanks.

[Mohit] (1:13 - 1:19)

Thank you. And before we get into the discussion, it'll be good to know more about Kigen and get introduced to the two of you.

[Mayank] (1:20 - 2:03)

Yeah, thanks, Mohit. I'll go first. So thanks for having me.

So as an introduction for myself, during the day, I'm Regional VP of Solutions here at Kigen, based out of the UK, with a clear mandate to accelerate the adoption of eSIM, iSIM, and RSP technologies. And at night, I scheme on ways of reducing plastics with SIMs. But jokes aside, India and APAC are my regions of focus, and we will focus a bit more on that in this talk. And we see great demand and potential for eSIMs. My goal

is to help device makers and telecom operators with end-to-end solutions that can help them go to market faster and most efficiently for their specific use cases. So I'm really looking forward to this conversation.

[Mohit] (2:04 - 2:04)

How about you, Bee?

[Bee] (2:05 - 3:57)

Hello to everyone listening in today. My name is Bee-Hayes-Takore, and I am VP of Marketing at Kigen. And in my role, I look after how we can support all of our partnership, that includes manufacturers who are looking to adopt eSIM, operators who are looking to make the most out of the opportunity provided in customer experience and innovation with eSIM technology, and how together we can really apply this technology to solve meaningful problems.

So Kigen is a company that was established to address the fast-growing need of security in the Internet of Things. And I think this is where the true technical challenges lay before around how do you make sure that security was a fundamental in anything that is truly memory-constrained or battery-constrained such that it also improves the consumer experience of it and allows everyone involved in its value chain to benefit from getting more out of that. So recognizing this, Kigen was one of the early initiators of how eSIM can benefit the vast majority of manufacturers, how it can bring value to operators, and in doing so, how it can open new possibilities and new use cases.

So, we were a company that was incubated within Arm, the global IP giant, and spun out as an independent company in the year 2020, backed by SoftBank and Arm, and really operating through a very extensive partnership model across module vendors, chipset vendors, operators, and manufacturers. We have our largest centers based in Noida and Belfast, otherwise we are a global company present wherever our customers are.

[Mohit] (3:58 - 4:24)

Thanks, Bee. And not only Kigen, we are also very excited about eSIM. We have been tracking eSIM very closely. As per our estimates, over 400 operators already offer eSIM, and the eSIM device ecosystem has been expanding at a very rapid pace. The consumer awareness has been going up. So there are some challenges, but again, overall, it's on a very positive trajectory. But can I ask you, what's your take on the eSIM adoption globally?

[Bee] (4:25 - 6:18)

You're absolutely right about there being a strong adoption in eSIM technology by the operator ecosystem. And this really starts showing in terms of monetary terms that global eSIM market is growing between 3 and 4x between now and 2027. And this represents a really big logical shift in SIM supply, bringing the OEMs, bringing the manufacturers as the kind of decision makers who are looking to really drive what connectivity goes where.

And so, for this, having a choice is extremely important. Another thing we see globally is that whilst there has been a lot of excitement about smartphones and eSIM-enabled smartphones, we now see more and more devices taking eSIM beyond smartphones and automotive. So this is mass market deployments around smart metering, logistics, telematics.

For example, there's about 50 million units in 2030 with a growth rate of about 31% in telematics. Another kind of big piece that we see driving eSIM adoption is the connectivity premise equipment. So what essentially are devices that would support fixed wireless access.

And that represents the second largest 5G revenue opportunity, both in unserved and underserved areas, which as we did some work together, estimated to be around one billion addressable connections. And this is very relevant in the context of India. And so with eSIM, we start seeing a lot of eSIM-only devices that are a lot more diverse in their form factors and functionality, which is really exciting.

[Mohit] (6:19 - 6:29)

So, thanks, Bee, for your take on the global adoption currently. Can you also speak about like, how do you see the global adoption in the next couple of years or maybe a little longer than that?

[Bee] (6:29 - 8:16)

Absolutely. So as I mentioned, there's been a strong excitement with kind of eSIM-only phones. And we see that in flagship devices, which has given a greater indicator of confidence to OEMs. But we do need that to move beyond flagship devices. You know, we've all had some experiences of travel eSIMs, but certainly there is a huge amount of opportunity to get it more available on memory-restricted and power-constrained devices. And I think this is that the next two years, the next, you know, what happens in the next few months and years will really determine how we can get to it. And for this, Kigen is actively working on two fronts.

One is working with OEMs with their needs in mind around how manufacturing ecosystems for eSIM can adopt faster and thrive with differentiation, with the ability to get the return on their investment. And we need to really simplify and streamline

that provisioning of the right connectivity directly on the factory floor. And with that, we're working extensively with operators so that we can provide a digital profile provision to OEMs as they need.

And so embracing that these ecosystems are really connected, we also work with global standards so that you can benefit the vast majority of ways in which manufacturing processes differ and where these additional devices that will form the growth of eSIM will come from.

[Mohit] (8:17 - 8:37)

Thanks, Bee, for this. So, Mayank, let's move our focus to India then. So there are three major Indian operators that support eSIMs and now they're also launching various devices, for example, Reliance launched Reliance OBD, or there are smartwatches coming up by Boat and Noise, which are eSIM enabled. How does this eSIM really help the operators?

[Mayank] (8:37 - 9:54)

Yeah, great question, Mohit. So I think, put simply, eSIM enables operators to benefit in two key ways, increasing revenue and reducing cost. So first, it enables an excellent customer experience, as you mentioned, the smartwatches, the ease of using these devices now, whether it's existing cellular devices like smartphones or new cellular-enabled devices.

It leads to a much better customer experience, which then leads to an increased average revenue per user for the operators. So there, the revenue growth with new device onboarding with existing devices is great news. Second, India is one of the most populous countries in the world and being a telecom operator in India is a massive operational undertaking.

So, what eSIM does is it introduces a digital journey and that removes the complex SIM logistics. So think about the hundreds and thousands of stores where SIMs need to be shipped today for operators and, you know, not even talking about the complexities of the different telecom circles, you know, 20 plus telecom circles. So all of this goes away with eSIMs, which leads to significant savings.

And there's been many studies done on, you know, the total cost of ownership around managing SIM cards versus using a more digital friendly eSIM and iSIM. So yeah, from my point of view, what's not to like?

[Mohit] (9:55 - 10:22)

Thanks, I can fully understand that. I used to work for Airtel in the past and I mean, it was a long time back, but we used to see so many gross additions happening every

month. And this would mean that so many SIMs would be physically moving from operator to the stores and then finally to the consumers.

And then the users would be using it for a couple of months and then again throw and get a new one. So I completely get it from the operator perspective. But how about the consumers themselves? How do they benefit from it?

[Bee] (10:23 - 11:36)

Sure. So eSIM really brings significant benefits to consumers. And I think some of the exciting things that I can think of are, you know, eSIM enabled with say satellite NTN connectivity, supporting fisheries and fishing communities, which typically then can trade so much more expediently and competitively.

Similarly, affordable fixed wireless access devices are able to provide connectivity to far reaches of the country, as well as better options to some of the high demand metropolitan cities. And so what's really cool is that this benefit is not just restricted to one area, it or one dimension, you know, it spurs affordable laptops, points of sale terminals with regional language support that provide easier connectivity to rural communities, all at the same time. So there's a bringing in eSIM alongside some of these technologies, the sum of the parts is really, really phenomenal.

And we do see this impact from some of the work that our customers are delivering in the region as well. So that's tremendously exciting.

[Mohit] (11:36 - 11:39)

Yeah, I mean, good to get your perspective on it.

[Mayank] (11:39 - 12:34)

Yeah, no, that's just from a pure consumer perspective, Mohit, I think, you know, we talked about a bunch of devices. The one I'm most excited about are these companion devices. You know, we talked about smartwatches, but, you know, for the India context, there's a whole bunch of health trackers and, you know, diabetes monitoring devices, which can be added to a user's existing subscription, right?

It's as easy as just turning the device on. So, you know, instead of having to set up complex Wi-Fi and tethering settings, you turn the device on with some eSIM technology and technologies like number sharing and so on, this just turns on and connects. And I'm really excited because this directly impacts the lives of the end users.

You know, I have personally, you know, elderly parents and family members, and I can see firsthand, you know, the significant value this brings to their lifestyle, you know, having devices that they can just easily use and, yeah, real world value.

[Mohit] (12:34 - 12:45)

So, thanks for giving a perspective on the new emerging devices that are going to come in. It's really exciting. But at the same time, how having an eSIM really will impact the digital consumption on these emerging devices.

[Bee] (12:45 - 15:09)

So, so far, our experience has largely been of devices that operate with the smartphone model. So, you know, there's a lot of excitement when eSIM enabled flagship devices came along. And I think that has provided strong confidence signals to OEMs and manufacturers.

I think we didn't see that early on when these were not so much activated. So you can look at great deployment numbers on eSIM and automotive. They haven't seen just as much activation as expected.

So I think that's the big shift that we are poised for now. eSIM capable devices mean that a consumer can choose how to subscribe to their own choice of operator or for the operator to allow to serve a much wider set of needs for the consumer. And I think this is where Indian operators are really getting it right.

So standards are also evolving to ensure that it's easier for a push or elect of the right connectivity profile on a device, harmonizing what we started to get used to on the consumer experience into IoT devices as well with the new eSIM for IoT or SGP.32 specification. And Kigen's also supporting new ways in which open market devices can be providing a choice of bringing in your IoT device into your trusted operator for consumers as well as for enterprises. So this is through the kind of new eSIM discovery service, allowing that consumer to look at their preference.

And I think that is truly phenomenal when it starts getting into the companion devices, because for long, it has been the dream of operators to really kind of have a vertically integrated proposition for their consumers so that their home, their smartphone, as well as all of their smart devices can be enrolled into the same kind of customer profile. I think that's a really unique thing that we start seeing, particularly in the India market. And that's something for the world to take note.

So certainly it is changing how digital consumption is viewed and is being kind of shaped through eSIM on these devices.

[Mohit] (15:10 - 15:21)

So, yeah, I know Kigen is focusing on India in a big way. Can you please talk about some of the initiatives that you are taking in India, especially to catalyze the manufacturing in India?

[Mayank] (15:21 - 16:17)

Yeah, absolutely. So, you know, Kigen India has been a permanent presence since 2017 based out of Noida. It is a global center of excellence for customer success. Over 30 percent of our global workforce is based out of India. So it is only natural that our Kigen India center is at the heart of enabling the manufacturing of cellular devices in India. Most prominently, Kigen has established a fully GSMA-certified SAS OP data center at the end of last year.

So this is the security accreditation scheme for UICC production, which is a global accreditation scheme run by the GSMA. Not only does it bring advanced secure eSIM technology and capabilities to India, but more importantly, it allows for local eSIM manufacturing and procurement, which then allows Indian manufacturers to globally compete. So think you're sourcing locally, but shipping globally.

[Mohit] (16:18 - 16:25)

Right, right. And India also has this Make in India initiative. So under this initiative, what are the prospects for eSIM?

[Bee] (16:26 - 17:50)

Thank you. That's a great question and a really, really important one. As the third largest digital economy, India is expected to record the fastest digital growth at 9.6 percent from now to 2027. So with regulation and data governance are going to be a huge priority for the country. And it's really essential to equip manufacturers to really work with Indian IP, with Indian players, with the Indian ecosystem to really thrive. And eSIM plays a part wherever security matters.

Hence, eSIM is also another level to support this opportunity to drive secure services for data. Before, only a few manufacturers could have taken that investment of going through the rigorous GSMA accreditation. But as Mayank put it, you know, the investments we are making and the investments that we want to see from others in the market really start showing kind of how Indian manufacturers can have a real big advantage in greater speed to market, in being globally competitive.

And so I think eSIM is something that will have a tremendous impact on India's economy and the way nationwide digitalization can really show impact in the next few years.

[Mohit] (17:51 - 18:04)

Thanks, Bee, for that perspective. And what are some of the market trends that you're seeing in specifically to India market and specifically when it comes to eSIM? What are some of the challenges or the opportunities that you see in the market today?

[Bee] (18:04 - 20:11)

So, I think there are a significant amount of opportunities. Maybe I'll start with the opportunities. And I think there is, you know, we've talked about some of the devices in eSIMs that get us really excited, but there is a lot to be said about these companion devices.

As I explained, again, you know, this is trying to have an important stride towards that holy grail that operators have had. But these companion devices, may they be smart speakers, smart watches, wearables, smart connected scooters or helmets, they're starting to be enrolled all into this, you And being able to have this 360 view of your consumer. And I think that's a very interesting opportunity, especially when you start thinking about how that influences through security, the prospects in mobile banking and mobile payments, retail opportunities across point of sale, etc.

So there's a lot of that maturity to an innovation, really ready for the Indian market, and I think that's very exciting opportunity for everyone. In terms of challenges, I mean, India has a tremendous drive and ambitious programs across the country to roll out, you know, much needed digitized infrastructure and energy, so smart meters, something that are a key set of devices that can benefit from eSIM technology. And these are much needed for the power infrastructure that spans such a vast region, such a vast set of states and consumption preferences as well.

So there's a mix of technology and this is undoubtedly quite a complex problem to solve. So there are some challenges in the way, but I think what we see is a greater need for shared value business models, partnerships, and an opportunity for really making sure that these devices are affordable and long term.

[Mohit] (20:11 - 20:40)

And there are many changes that are occurring in the Indian market today. So AIS 140 was made mandatory for the public transport vehicles. There's a big push for smart meters in India.

We believe that over the next few years, maybe three to four years or five years, we'll see 250 million new smart meters being installed. And then you have these smart watches that you've been talking about, the companion devices, CPE devices. So how is Kigen supporting these devices across enterprise and consumer domains?

[Mayank] (20:40 - 22:25)

Yeah, I'll answer that Mohit. So I like that question first. You know, these are examples of use cases where Kigen is already shipping our SIMs in India with many more use cases such as, you know, automotive, smart home, laptops and trackers is being touched upon there.

We support these devices and enterprises and operators in, I'll summarize three ways. So number one, we're seen as technical experts. We are a unique company in the SIM industry with the SIM IP license model.

So it's very similar to our founding company, ARM, where we're seen as a neutral partner and providing an unbiased view to the device makers. So that's number one. Number two, even though the use cases are all using eSIM, but the solutions are tailored for each use case.

You know, for the Indian context, I've mentioned the different telco circles, different operators with their different sort of approach to the eSIM market. So we support the Indian operator ecosystem, but also ensuring fully standards and interoperable solution globally. So for example, if you're an OEM building smartwatches, we can support your devices to be launched in the country with existing operator apps like Jio Everywhere Connect, or with your own app.

So that's really important to consider when you're looking at your eSIM journey for the customer. And finally, number three, we have a large array of hardware manufacturing partners globally. So what this enables is you can have optimized logistics and, you know, the devices can be assembled in India or elsewhere, and with our local hardware partners, you can really optimize the logistics and save on cost.

So those are the three things I would say where Kigen provides added value to device makers and enterprises.

[Mohit] (22:26 - 22:42)

Thanks. And then there are a large number of companies in the devices space who wonder like how to embed connectivity in factory profile provisioning. Can you please educate our listeners on this important topic? Maybe a couple of minutes of guide on how to do it would be very helpful.

[Mayank] (22:42 - 24:27)

Yeah, this is a topic very close to my heart. You know, if I put my solutions hat on. You've touched upon a very key pain point and also, you know, an opportunity in a way.

The choice of multi-profile eSIMs is a tricky one for device makers. Not only do you have to choose with the right eSIM standard to support, you know, whether it's the

M2M eSIM, consumer eSIM, or the new IoT eSIM, as we mentioned the SGP.32 earlier. But the device makers also need to ensure that the eSIM supports the connectivity for the part of the world where the device may end up.

Now with over 800 operators globally, this is a daunting task. So to help, Kigen has been innovating an in-factor provisioning solution. The standards in the ecosystem are also addressing this challenge, which in essence gives the device maker freedom to simply load the connectivity from any operator in the world onto a blank eSIM as late as possible in the manufacturing cycle.

So it gives them a lot of flexibility. So you could literally just before the device leaves the factory floor, you could decide which region it's going to, which operator connectivity you would like to load, and that can be done at the last minute. So as an example, if you take a small meter manufacturer, they build these big units.

They are complex pieces of technology. They do a full assembly and testing, and then the meter is ready, and they will plug in a NIC card for the connectivity part. And if the NIC card has a key in eSIM, then just before you ship the meters, let's say you're fulfilling an order for Bihar, for example, the meter maker will be able to load the profile for the operator chosen in Bihar all the way down to selecting the right telecom circle, because that will make sure that the meter just works when it's installed on the site.

So this is a bit of a game changer where we allow the factory provisioning of the operator credentials at the last minute.

[Mohit] (24:28 - 24:58)

Yeah, it has been a big pain point for sure, because, you know, connectivity is so complex. We were doing another set of research on connectivity management platforms. It's really complex.

And the more we are able to do it as late in the stage of manufacturing, the better it is. So wrapping up, if you look at 2022 was a great year for eSIM, 2023 was an even better year. What is your expectation from 2024 over the next few months? So do you think it will be the best year for eSIM yet? Or what is your expectation from the year?

[Mayank] (24:59 - 25:37)

Yeah, I mean, I would completely agree. I think it's only an upward trajectory. And, you know, especially in India, I only see an acceleration in the devices coming to market.

And also, in a way, you know, some of the great work you're doing is, you know, the increased awareness for the general public. And you would expect they will demand

this better experience that an eSIM provides. So the ease of use, you know, the ability to buy devices which just connect, I think is great for the users.

And let's not forget the green credentials of eSIM, you know, saving on plastic, saving on logistics. I think this makes a difference to our lives. So I'm really excited about the future.

[Bee] (25:38 - 26:44)

That's perfectly put. I think certainly with all of those things, as well as when we look at some of the macro levels, things that are happening in the macro level, data and AI will no doubt play a huge role in digital experiences along with all of the devices that Mayank has mentioned. And in the Indian context, I think this is a sort of perfect storm of many things coming at the right time, because it's also will have a very strong play in that small payments innovation with it being the world's largest banking market.

And so eSIM provides a lot of these opportunities for deeper integration, for security, especially when used with another technology, you know, particularly around data service acceleration, like IoT safe. So certainly I think there is going to be a lot to watch in this space. There's a lot of innovation happening.

Certainly not sure as far as I'll go with saying the best year ever, but certainly yet, definitely interesting times ahead.

[Mohit] (26:45 - 27:18)

Yeah. Looking forward to it. And thanks Bee and Mayank for the insightful discussion and joining the show.

I learned a lot today about Kigen and how it is changing the eSIM industry in India and the market trends that are coming up in India in the eSIM industry. So thanks for it. And for all our listeners, thanks for tuning in.

Reach out to us via email on contact@counterpointresearch.com. You can also listen to previous podcasts on major podcasting platforms, such as Apple Podcasts, Spotify. For now, this is Mohit signing off. Have a good day and see you in the next one.