

Episode 93 | The NETWORK will be the reason telcos move to the public cloud

Juha Korhonen

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DR: [00:00] I'm DR, and this is "Telco in 20."

[00:14] I love keeping tabs on cloud transformation trends across the globe. When it comes to innovation and adopting new technology like AI and the public cloud, each continent is on its own track. For example, China may be home to some of the most innovative telcos in the world. Who knew! The operators in the United States have the hyperscalers right in their backyard, but still have lots of legacy tech to deal with? And Europe struggles with having small countries and too many operators, making the economics of running a profitable mobile network super challenging.

[00:44] Today I'm digging into worldwide transformation trends with the senior telco exec who has his finger on the pulse of the industry. Juha Korhonen has served as Zain Saudi Arabia's Chief Commercial Officer, and most recently was a senior advisor at Gartner in the BSS practice. We're going to talk about the coming convergence of BSS and OSS, the importance of focusing on the customer experience, and my favorite, the impact of AI on telco operations. So let's take 20.

[01:09] Hi Juha. Welcome to Telco in 20.

Juha: [01:15] Thank you for having me back.

DR: [01:17] You have one of the best Telco in 20 podcasts. I go around the world and people tell me how they love that episode and it's amazing. And so I know today's podcast is going to be also totally great.

Juha: [01:29] Sounds like a plan. Let's do it.

DR: [01:32] All right. You recently left Gartner and have an industry perspective. So let's start there. At Gartner, you were responsible for research and analysis in the BSS space, and you were also involved in Gartner's Eye on Innovation Awards, which showcases innovative technologies across industries. And so what trends were you seeing around the innovative solutions and telco cloud adoption around the globe?

Juha: [01:53] Yeah, so that's a really big question. How much time do we have? There's a lot of stuff happening in the world and the different parts of the world is behaving quite differently. If you

look at the US, the US is in a sense the most advanced when it comes to the cloud technology, but the telcos are huge companies with limited or no differentiation. Basically, everybody's trying to do the same thing. They do have a lot of faith in technologies like 5G slicing, network edge. They are trying to push growth through verticals. Literally, their business is driven by handsets and how good or bad the next generation of iPhones will be.

[02:29] And they are definitely struggling with the legacy tech on the large side. So for them, innovation is about deploying new technologies, getting into P2P verticals, which ends up being sales execution and the products are the side story. And then you start to look at Asia. I think in Asia, you see the product innovation. You also see that the operators have a much larger space in their country, so they're able to do more. You start to see true innovation on technology partnerships. And if you get to China, you actually start to see real technology being used. They are the ones pushing large-scale BSS transformations or using a blockchain for network sentiment or network sharing and so forth.

[03:07] So really different level of innovations. And Europe, they have too many operators in Europe. They really do. But then you see them trying to do something new with the telecom network, something that has not been done before. Like, for example, trying to see if it can be used for recharging electric vehicles instead of communication technology, like doing something else. So there's a lot of stuff that is happening across the different part of the world.

DR:

[03:32] Yeah, and I'm seeing a lot of open-mindedness to new technology in Africa. Some of these smaller markets have a little bit more constraints around funding and it opens up their mind to new technology, like the stuff that we're doing at Totogi with AI or public cloud. So that's really nice.

Juha:

[03:48] So building on that, if you look at these small countries and the third and fourth operator, so MVNOs. If you look at the ones with the problem or really serious skill shortages like in many African countries, I think these are the places where you see the change, you see the innovation, you see the push.

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- DR: [04:04] Yep, totally. Now our first episode was back in 2021 right before CLOUD CITY at MWC, and those were the early days of me evangelizing about telco adopting and using the public cloud. CLOUD CITY was amazing. I had that great keynote and people still come up to me and talk to me about the Jon Bon Jovi concert. It's now the three-year anniversary of CLOUD CITY. Over the past three years, you've been spending a lot of time talking to different telcos. Are telcos moving to the public cloud? Are they seeing savings? And in your opinion, are they doing it the right way?
- Juha: [04:36] Well, the short answer is yes, of course, they are moving to a cloud.
- DR: [04:38] Yay!
- Juha: [04:39] But it's complex. And so the real answer probably depends. As you know, there's huge regional differences. But there are few things that I really think are limiting what they can do and if they don't change them, they're basically doomed. So one of the things is that the public cloud, by definition, you are moving from a capacity-based models to a consumption-based models.
- DR: [04:59] Correct.
- Juha: [04:59] But if you buy public cloud on a capacity basis, you actually don't necessarily realize the savings. And if you don't do something with your legacy that is driving your cost structure, you actually don't realize the savings. It becomes additional cost. So it's really, really, really, really critical that you start to change about how do you run the technology and what is capacity-based and what is consumption-based and how do you build those models into your business.
- DR: [05:26] Yeah, I think this is actually a very important insight that you have here, that a lot of operators don't. They're either not comfortable buying in this way where it is consumption-based pricing. They're worried that it's going to go out of control. And so I feel that in 2024 and in 2025, operators are going to be like, "I'm not saving money with the public cloud, DR. You're wrong. You said it was a lot of savings". And I'm like, "You're doing it wrong. You're lifting and shifting, and then you're buying it in the same way and provisioning it in the same way and you're

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not taking the advantages that the public cloud offers." And so yeah, you're not going to save any money.

Juha: [06:03] I think some of our genius telco friends have actually managed to invent a more expensive public cloud. I don't know how they did it, but it's amazing. Think about it. How are they running the business? I don't think it's even so much about being afraid of the cost running away. It's two things. One, when they're doing procurement decisions, they're looking at total cost of ownership. And on total cost of ownership calculation, public cloud comes up very, very good obviously because you don't need to deal with the infrastructure and everything else.

DR: [06:29] Correct.

Juha: [06:29] However, internally they are measuring the performance on total OpEx, total CapEx. So now if you keep your legacy infrastructure and you add anything to that, of course, by definition, it's going to be more. So now the finance guys are looking at this and say that, "Hey, we didn't realize any savings." Well, duh, you did. Other problem is really about how they run the process between the CFOs and the CTOs. So I think maybe you need to start to talk to the finance guys because if you do an annual planning cycle, if you need to commit into an annual CapEx, annual OpEx, if you have a cost-saving targets on both of those, if the finance team can't handle the changing invoices from month to month because they are used to the capacity model instead of the consumption model, this can't work because they have to change the working model between them.

DR: [07:13] Yep. No, totally. We talk about this all the time that it's not just a technology change, it's also the operational runbooks and they stretch over into FinOps. You need to have an actual finance operations of your cloud spend, and then a really good plan on cloud cost optimization. And it's not something you do on a yearly basis. It's not even something you do on a monthly basis. It's at the daily basis of managing those costs going up and down. And there's huge savings if you do it right.

Juha: [07:40] I really loved the one of your episodes, I think you had British MVNO who was using from AWS the unused cycles and they were basically getting the computing capacity for dirt cheap.

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DR: [07:50] Yes.

Juha: [07:50] But then the downside of that was that they had to be able to run down a service in less than two minutes or something like that.

DR: [07:57] Yes, giffgaff. You're talking about giffgaff.

Juha: [07:59] That's amazing that somebody's able to do that.

DR: [08:01] Yep. They use spot instances and people are really wary of spot instances because they can go away. If AWS needs it, they take a spot instance. Now if you build the resilience into your technology to be able to go spin up another server, you're fine. And that's what he did.

Juha: [08:16] But if they can do it, anybody should be able to do it, right?

DR: [08:19] Absolutely.

Juha: [08:20] Why not?

DR: [08:20] So let's talk about what is moving to the public cloud. It's kind of funny, it makes me laugh because back in the day, people were like never the public cloud and now they're like back office systems, sure. BSS, totally. And so I think a little bit more controversial is network workloads, parts of their network that are moving to the cloud. And so what's the general consensus out there about moving network workloads to the public cloud?

Juha: [08:42] I actually think that it is the network workloads that will totally convince the operators that this is really okay to do because that's what the business is all about. So they need to do that to believe it. And I think what kind of totally made me believe that they are starting to see the light was what happened between AT&T and Microsoft in 2021 when AT&T sold their 5G cloud team to Microsoft and Microsoft started to operate it for them. So that was a realization at least for 5G core and so forth, that this is really okay to do. And also admittance that they need the hyperscaler with them to do this. That's a better way of doing that than trying to do it themselves.

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- DR: [09:20] It's the Nexus project that you're talking about, right?
- Juha: [09:22] Yeah, yeah, absolutely. Microsoft Azure Nexus is the product that Microsoft has, but there you're having a 5G Core on cloud.
- DR: [09:28] Yeah, I think AT&T has been really squirrely about where that Core is running. I think Microsoft would love to claim that they're doing it. And I think John Stankey, the AT&T CEO, is not being super clear. He's saying, "No, it's still under AT&T's roof."
- Juha: [09:43] Well, all I know about that is what's on the press release that they put out. So-
- DR: [09:47] No, exactly.
- Juha: [09:47] That's showing you that that can be done.
- DR: [09:49] No, absolutely. And then I think at MWC 2024, e& out in Emirates, also has signed up to use Nexus as well. It's one thing for a US telco to be using a US hyperscaler, but now a UAE telco using Azure services is very interesting. And then we have that other example in the United States, which is DISH building their entire network on AWS. And they've had some financial problems and some commercial challenges, but I think technically if you talk to Marc Rouanne, he'll say that that network is absolutely running on AWS and it works. And it was maybe 20% of the cost of a new network build-out.
- Juha: [10:25] And if you have been listening to what NVIDIA is up to, they are now starting to talk about the fact that up to 60% of the radio access network computing elements are just sleeping. They're doing nothing because people are sleeping. So suddenly you have all of this computing capacity out there doing nothing. And if you can move that from a purpose-built radio-only computing capacity to a general purpose computing capacity, and obviously, these guys want that to be their computing capacity, suddenly, you would have all of this additional capacity that can be used for any kind of AI tasks.
- DR: [10:57] Massive savings.
- Juha: [10:58] And really totally changed the way companies built radios and operate radios.

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DR: [11:02] Yeah, amazing. And so getting a little bit into that, traditionally, telcos have had a clear separation between BSS, the customer-facing processes, and OSS, managing the network. Do you see the separation changing in how telcos are trying to make their networks more open for subscribers?

Juha: [11:22] Well, first of all, it has to change. So right now, the telcos are so happy about their Five-9s, but they're actually offering is a best-effort network. And if this would be the way people run airliners, nobody would accept it because suddenly, 15 minutes downtime a year still means that all the planes crash, right? So not great. And now the future is supposedly all about autonomous vehicles and drones in the sky. If you have a 15-minute out, this is not the way it works.

[11:46] So this whole separation that you have OSS looking at the network and managing the network and the BSS looking at the customers and products and managing the business and they are somehow separated, cannot continue. It has to become one. And we have to move away from a best-effort network to a currently quality networks and these two components need to work together. They need to sort it out. How the heck is it going to be done so that we don't have trucks on the ditches and drones crashing, because, otherwise, this is never going to work.

DR: [12:12] Yeah. What's interesting to me when I talk to telco executives is obviously if the network doesn't work, services go down, it's unacceptable, subscribers leave your service. But I think at some point we've reached network parity, they're pretty much all the same. And I know operators don't want to hear that. And so I think what the operators need to start doing is start really focusing on that subscriber experience and building a stronger relationship and not just having this attitude of we built the network, we're done. But I think it's going to have to be more if we're not going to be commodity utilities.

Juha: [12:45] Yeah. All the operators in the world I believe try to do three things. If you ask them, they're trying to grow revenue, they're trying to reduce cost and they're focusing on customer experience. And they kind of not really great on any of those three things.

DR: [12:58] Yeah, yeah.

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- Juha: [12:59] And I think it's one thing to start to do a loyalty program, so additional products or something like that, but if your network experience is not at par and it's not actually working, you cannot. It's not working. If you ever want to be a 5G monetization, the 5G needs to be able to be more than just better 4G. And that means that experience, that relationship between BSS and OSS needs to change. Absolutely has to, otherwise, forget it.
- DR: [13:25] And the same thing will happen with 6G unless we change.
- Juha: [13:28] I don't think there ever will be a 6G. I think nobody's going to buy it. Like why? It's just a little bit-
- DR: [13:32] Exactly.
- Juha: [13:32] ... even more better 4G, like why?
- DR: [13:35] No, exactly. We need to really change.
- Juha: [13:36] Something needs to change. Yeah. And technology is absolutely key of that because where else can it come from? Come on.
- DR: [13:42] Exactly. Well, let's talk about the biggest technology change since the public cloud, which is AI. It's a huge topic. I mean, I open up my Twitter feed and it's about all the changes going on in AI. And so as you've been spending time with different BSS vendors and talking to different operators, what specific areas within BSS are seeing the biggest impact as a result of AI?
- Juha: [14:02] Well, first of all, I think it's early days. So I think we will see more change in the future. And so far, if you look at it today, a lot of that is either something to do about customer interaction, sales interaction, marketing targeting, early days of product optimization, design, pricing. What I find really interesting is the fact that AI can write code. AI can figure out how to do things that maybe we haven't figured out. So maybe it can be used to solve the big problems of telecom. And what are those? How to do digital transformation? How do you go from legacy to AI modern? Maybe even including rewriting the code for that if needs be. It can write code. What is another

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difficult thing about BSS? How do you simplify product catalog? There is a 30-year-old product catalog with the complex structures.

DR: [14:47] Absolutely.

Juha: [14:47] People build them on pen and paper. They have retired 10 years ago, nobody knows how it works. AI can figure it out. There's also another problem about the customers. How are the customers grouped? Is it SIM card-based? Are there families? Are there companies, all of these customer structures? AI can figure it out.

DR: [15:05] Yeah, it's crazy.

Juha: [15:06] AI can automate the cloud components, how the operations work. So I think the potential of AI is not only about how to do the things that we're thinking right now, it can solve the big challenges. And whoever figures that one out I think is going to have some amazing business for them.

DR: [15:20] Well, I think it's going to really devour the CR market, the entire spend that we do to, here's my idea, give it to a vendor, wait some time for them to code it and it comes back and it's hundreds of thousands and millions of dollars to do it. And now empowering those IT groups within telcos or maybe even business users themselves to be able to get the things that they want because AI can code it up for you by just natural language. It's just going to be absolutely insane. It's going to start there and it's just going to devour the way that we are working and the way that we're getting new ideas and new features into products like BSS.

Juha: [15:56] It has to be the business users. So if you think about the software company, and if you think about these internet companies, there's no such thing as a pure technology, pure commercial. They are same team. So either the CTO, CIOs, they start to take more ownership of the result of what they're building or they need to get out of the way and let the other side of the house then get more ownership of the technology and capabilities because the tools are in place. And I think you have seen this when you talk with the MVNOs, the separation of duties inside of the organization is very different compared to the traditional telcos. It has to change.

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DR: [16:29] It's insane. So Juha, you are one of our original OG guests. At the time, I was just a girl with a podcast. And so we went to CLOUD CITY. It was super fun. And so I have to ask you, what's your favorite memory of CLOUD CITY?

Juha: [16:43] Meeting Jon Bon Jovi and having a picture with my COVID mask on. You can't beat that.

DR: [16:47] I know.

Juha: [16:48] But what I really remember is that first time walking in and looking at CLOUD CITY, this is what disruption looks like. And I remember you guys having those robots going around where you were getting people to interview remotely and so forth and having all the fun when the Wi-Fi didn't work. What a perfect 5G use case for network slicing and so forth. This is what disruption looks like, and that was amazing. So thank you.

DR: [17:09] I dream of CLOUD CITY every time I walk by the Ericsson space, I'm like, "Oh, what we had here was just so special." And of course, my picture with Jon Bon, Jovi, I love as well. And Juha, again, you've been a friend of TelcoDR since the way beginning, and it's always great to catch up with you and hear your perspective. You always have a really awesome global view of what's going on in telco. And so thanks so much.

Juha: [17:42] Thank you for having me.

DR: [17:43] Awesome. 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.

[17:54] Let's dive deeper into something Juha and I just talked about: telco's addiction to CapEx software buying. People believe CapEx is better for software because it results in asset ownership, provides long-term value, and offers greater control over the system. I get that they enjoy the stability and predictability of a one-time investment that can be depreciated over time and the tax benefits that can enhance the organization's balance sheet.

[18:18] However, given the rapid pace of technological change with the recent advancements in public cloud software and AI, it's time that telco execs shift to buying via OpEx. OpEx allows

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businesses to remain agile with the flexibility to scale and change quickly to new technologies without being tied to outdated software. It provides lower initial costs, reducing financial risk and frees up capital for other investments.

[18:41] Also, OpEx models include continuous updates and support, ensuring access to the latest features and enhancements. No more upgrades ever. Stop giving your vendors millions of dollars upfront to get a project started.

[18:53] Hasta la vista, Amdocs. Instead, try SaaS tools like Totogi that offer a pay-as-you-grow model and move from a committed capacity model to a consumption model like Juha suggests. And use all that extra money to send your team first class to TM Forum's DTW Ignite in Copenhagen on June 18th through the 20th. I'll be there with Team Totogi. Send me a DM on LinkedIn or X @TelcoDR so we can set up a time to meet. You can find me in the AWS stand, so be sure to stop by to catch Totogi's BSS Magic.

[19:26] In the meantime, tune into more Telco in 20 episodes. Like and follow and leave us a five-star review. Don't forget to sign up for my awesome sauce email newsletter on telcodr.com now with more than 5,100 subscribers. Woo-hoo! And check out our amazing YouTube channel. Later, nerds.