

FROM THE INDUSTRY

Inside Teleste:

TALKING TECH, TRENDS & THE FUTURE
WITH HANNO NARJUS AND ARTTU PURMONEN

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TELESTE



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HANNO NARJUS, SENIOR FELLOW AT TELESTE DISCUSSES THE FUTURE OF BROADBAND CONNECTIVITY AND THE COMPANY'S ROLE IN SHAPING THE NEXT GENERATION OF DIGITAL INFRASTRUCTURE. WITH TELESTE AT THE FOREFRONT OF NETWORK SOLUTIONS, NARJUS SHARES HIS INSIGHTS ON THE EVOLVING LANDSCAPE OF HIGH-SPEED INTERNET. HE TALKS TO MELISSA COGAVIN ABOUT THE CHALLENGES AND OPPORTUNITIES WITHIN THE TELECOM INDUSTRY AND TELESTE'S INNOVATION-DRIVEN APPROACH. HANNO IS JOINED BY ARTTU PURMONEN, VICE PRESIDENT, SYSTEM & CONTENT MARKETING AT TELESTE.

TELL ME HOW THINGS ARE GOING AT TELESTE HANNO.

HN: Let's start with Europe. While we are involved in the fibre business, we have a strong legacy in cable and coax systems. Therefore, how the cable assets in Europe are going to evolve and what scenarios are there for fixed network operators with cable assets is an area we analyse carefully – as well as the opportunities to develop those cable assets further, for example.

HN: While we claim that coax can do everything that fibre can do, we do recognise that there are other strategic reasons why several fixed network operators in Europe are looking at how they will be overbuilding existing coax systems with fibre. There is no 'one size fits all'. Different operators have very different timelines and strategies in transitioning to fibre. Some of them are not going to do it.

WHY NOT?

HN: They'd rather compete for the next 10 years, invest in existing coax rather compete with the fibre players. Some firmly believe the best way they can compete for fixed broadband is to invest in their coax systems. Elsewhere fibre overbuilding is deliberately underway; in France the local network operators are fibre overbuilding in their existing coax footprint. It's a case-by-case scenario.

IS INVESTING IN COAX HAPPENING BECAUSE THE SUBSCRIBER RATE IS NOT AS GREAT AS EVERYBODY THOUGHT?

HN: In the UK a lot of money was invested but the number of homes connected has turned out to be lower than expected. The connection rate has been a disappointment. The timing was unfortunate, post Covid; interest rates were going up at the same time, the cost of capital was growing. That has happened elsewhere too; even in those markets where fibre overbuilding was in progress, the speed has not accelerated. It's possibly even decelerated the past couple of years.

ARGUABLY YOU'RE BETTER OFF PRESERVING EXISTING INFRASTRUCTURE THAN OVERBUILDING IF YOU DON'T KNOW

IF THE RETURN IS GOING TO BE THERE.

AP: If you start to push too hard with fibre - especially with your existing customers - as a subscriber one would start to think that, ok there's clearly a market here - let's see who else can provide fibre for me. You are opening yourself up to competition again. Logically, if you have satisfied customers who use coax and get everything they need, how much do you want to really push them?

THE PUBLIC ARE ALSO RIGHTLY CONFUSED. IN THE UK MANY PEOPLE THINK THEY'RE CONNECTED TO FIBRE ALREADY; THERE HAS BEEN A LOT OF MISINFORMATION.

AP: The naming of these broadband connections has also confused people. 'Superfast broadband is here' for example, have not helped. It's happened all over Europe and has hampered progress.

HN: Even though we are evangelists of DOCSIS and cable, we recognise that there are strategic reasons why the fibre roll out is taking place and it's not going to go away. So, how can this transformation take place at a reasonable cost, with a good quality service for subscribers? Reaching the homes passed target is going to take years, and even then you still need to convince the customer. If things are working well as they are, why would they be motivated to move from coax to fibre?

THEY'LL HAVE TO DIG UP YOUR LAWN AS WELL.

HN: So, you need to motivate and convince the subscribers. That will take time, 10 plus years at least, while they still need to have DOCSIS subscribers in their network.

A GOOD OPPORTUNITY FOR TELESTE IN THE MEANTIME.

HN: If we agree that you want to still maintain your existing broadband service, you also have to be prepared to invest in your network as technology evolves over the next 10 years.

QUITE A BALANCING ACT, ISN'T IT?

HN: Don't assume that you can just replace an amplifier here and an amplifier there. That's not a viable option. Technology keeps moving at a fast pace. Operators who are doing strategic transition to fibre still need to execute technology transformations on cable infrastructure, so we are looking at how we can help them not only ship boxes but also support them to operate and transform. We have quite a lot of knowledge how to build and run.

YOU HAVE SEVENTY YEARS' WORTH OF THAT.

HN: We think there is a lot of sense in outsourcing operators' DOCSIS needs over time; outsourcing the legacy network engineering and operations is an effective mid-term strategy; it ensures business continuation while operators are gradually losing DOCSIS and HFC competencies, while it can make good sense for us to pool such competencies and serve several network operators with that capability pool. It's win-win. We have already completed outsourcing setups in Finland, where we are actually running the core DOCSIS and cable systems. We are running the NOC on behalf of the customer. We now receive the tickets from the help desk. We dispatch the truck roll and do troubleshooting what's going on in the network. And when it comes to transitions to virtualised DOCSIS core, Distributed Access Architecture etc. - these virtualisations and distributed architecture are complex transformations.

THIS IS A SMART MOVE; YOU PROBABLY DON'T HAVE MUCH COMPETITION.

HN: Correct. Cable operators have historically had strong in-house engineering and operations divisions; outsourcing was not really a thing for them. Cable network operators have been traditionally vertically integrated.

WHAT WOULD YOUR MESSAGE BE TO THE MARKET ON THIS INITIATIVE?

HN: Guys, don't rest on your laurels. You have to be ready to maintain and transform your systems. The market is divided into two types of businesses. Of those that

want to keep DOCSIS competitive, we support them by continuously introducing new technologies to enhance its capabilities. Then there is that midsection, who have long-term vision to overbuild with fibre, but who agree that it'll take probably 15, 20 years. Those are the targets for outsourcing opportunities. Also, we have to keep in mind one more pretty important factor, the technology's moving forward, but people are also moving forward and the level of competencies with DOCSIS and HFC RF transmission, that population is aging. Look at me.

THE KNOWLEDGE BASE WILL BE GETTING SMALLER, BUT THAT ACTUALLY PUTS YOU IN QUITE A GOOD POSITION AGAIN.

HN: Operators are going to gradually reach a point where the critical mass of resources available is no longer adequate to run a quality operation. There aren't enough competent people anymore. That sounds like there would need to be pooling of competencies that can then serve several larger network bases. I visualise another outsourcing activity. We could take over some of that engineering headcount, integrate them to a new

organisation that would be serving not only one network, but several.

YOU'RE TACKLING AN UNCOMFORTABLE SUBJECT THAT NOBODY REALLY WANTS TO CONFRONT. WHERE DOES AI FIT INTO ALL OF THIS?

HN: With fibre becoming increasingly widespread, coax can no longer be considered the sole option for ultra-high-speed broadband. Which means that you have to compete in other ways - you have to differentiate on price, quality, network and service availability. Service is the main area; if you are failing on that one, you will be facing churn. And that's when AI, machine learning, analytics and automation come into play. There are untapped opportunities to detect network anomalies before they impact your service, and this is another area where we have historically been the innovator. We have been talking about intelligent networks for 15 years. We need to continue to push the envelope and find better analytics to detect underlying issues in your infrastructure. With all this data that we can now collect from the network elements, cable modems, at home, the possibilities are limitless.

IS THAT SOMETHING YOU WOULD LOOK TO? IT'S A COMPETITIVE MARKETPLACE ALREADY.

There are many innovators out there of course, but what they are all doing is collect data from their own kind of products. Nobody is analysing and correlating data collected from across the entire network; for instance correlating the data from cable modems with the data that we can collect from our DAA nodes and smart amplifiers. There is another layer available and that's exactly where the AI and ML come into play, because now we have tons of data, way more than ever before.

IS THIS A POTENTIAL LINE OF BUSINESS FOR TELESTE?

Yes, but it's still early days; we need to go deeper on this topic with kind of lead customers, because some of our US customers have been doing quite a lot of in-house development on this already. We need to find the balance. How much does the network operator do on their own, vis-a-vis how much can we help them? It needs some business development.



AP: As Hanno explained, we want to support the customers who want to maintain their networks. The same applies to the broadcasting part of our business as well. Everybody talks about OTT, that broadcasting is dead, but it's not that black and white. It doesn't matter whether 30% or 70% of your end customers watch television. You still have to facilitate that through your network.

PLUS, THERE ARE STILL PEOPLE WHO WANT TO WATCH TERRESTRIAL TELEVISION.

AP: Fibre operators have anticipated that and are now asking what kind of products are available to facilitate traditional broadcasting in a fibre network. So, this year we launched our Edge QAM device for operators using deep fibre to enable this service. It's particularly useful for entering multi-dwelling units.

With our long history, and deep relationship with our operators all over Europe we are in a unique position. We understand that every territory is different, and every operator has different needs. Anyone can do a PowerPoint presentation and promise the earth, but we work very

closely with our customers to understand what they need, we are aligned with them, we understand what makes them unique and adapt our services accordingly. As a managed service provider, we are in a good position to develop this kind of service port for our operators' main services, especially those who don't have enough of their own resources to run them.

And you mentioned aging engineers, but I think actually one of the critical elements needed is that once this AI and machine learning starts to become really advanced, somebody has to teach them. That's where the aging engineers can leave a legacy.

IT SOUNDS LIKE THERE ARE SO MANY OPPORTUNITIES FOR YOUR COMPANY AT THE MOMENT.

HN: It's an exciting time. There is a full 10, 15-year journey still there and lots out there to innovate.

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