MWC 2022 | Energy Efficiency Trends in 5G

VIDEO TRANSCRIPT

Speakers: Albert Tan, Accenture

ALBERT TAN: Hello, everybody. I'm here to bring you on two of my favorite topics, one of sustainability and the other one on 5G. I lead two roles in Accenture. I'm the Global Lead for Sustainability and also the Lead for Networks in Accenture.

Now today, my question is about how can you enable 5G networks to drive a sustainable world? The outcome you're going to hear from me is, number one, the impact in the society and which industry vertical is actually capturing the benefits of 5G and sustainability. And the second topic I'm going to cover about is how do you unlock value from your networks from 5G? How do you design the network in 5G? How do you enable the operations in 5G and how you leverage AI in 5G to drive operational efficiency?

We've done many studies in Accenture globally, and we've found a consistent trend. Roughly about 70% of global emissions can be reduced by ICT on 5G enabled services. We've done two separate studies in North America, one in Canada, the other one in the United States. We found a consistent trend of over 20% to 23% carbon abatement reduction itself and at the company level, we worked with a UK telco that we can actually drive it further down to 40% emission energy savings itself.

Well, where are the impact? We feel that telco and CSP have a pertinent role to play to enable society, to capture these benefits and where the benefits are going to be. This is where 5G is actually applied to different industry verticals into your enterprise services in B2B. So let's look at some of the verticals that we've found. Electricity and heating, manufacturing, agriculture, building and transportation. Especially in the last one, building and transportation, we're seeing huge, massive impact in CO2 removal, carbon abatement in those industry verticals.

And let's talk about the size of the prize. How big are they? Why are you doing this? If you look at today's world with all the time we spend in queuing, in transport, in our traffic jams, with COVID now, we're working from home… and also, with the energy consumption at home, how do you actually reduce it further and all the data and inventory we're looking for? We found these main four sources - in smart transit, remote working, consumer energy management and industrial inventory management - it's where a CSP and a telco could benefit from the energy reduction savings itself in these four major areas.

In Accenture, we believe in driving two sets of levers that will drive you benefit. The top lever, the top line, it's all about how to plan more efficiency, efficiently in your network operations, your network, energy facilities management and in how you leverage the network traffic and experience management to your consumers and your customers… while maintaining on the bottom row, the effectiveness of the 5G levers that you can drive, reducing your power consumption by 50%, still maintaining the 100 times faster than 4G environment, maintaining a throughput, latency and reliability, and targeting 20% to 30% of your carbon abatement efficiency from your legacy networks itself.

Now, let's look at a use case itself on sustainability. We helped the client to look at it holistically to benefit in the inception of a new network, how to plan an efficient network design. So we looked at the main sources by working with all the global partners itself, from the first

sources looking at the chip level efficiency in terms of how the network is leveraged, which type of chip? Number two, specific look at radio level algorithm that will allow you to capture the best throughput in your 5G efficiency itself. And lastly, and to look at your energy sourcing level for sustainability. So basically, we holistically pull an end-to-end approach to drive the best network efficiency design for your 5G networks and to drive the effectiveness of the output and the throughput at your 5G efficient effectiveness itself.

So how do we pull it all together? We basically pull it through the network design. We look at intricately from your spectrum, from the operations, from your services that you're actually trying to deliver and drive the network design. Next itself, we're looking at the network operations and automation itself to drive through how to bring the automation, and that works to drive further efficiency. Certainly, we looked at the network optimization to drive the data, AI and algorithms. That's actually best to drive continually to send analysis, predictive and alerts of your networks.

Now, how do we actually pull this all together? In Accenture, we actually believe in bringing you through the journey itself and helping the telco clients on this journey, specifically looking at the environment and the carbon abatement energy savings that you are actually going to target, the net lifecycle management, the circular economy impact, the social port itself to bring in the awareness to your consumer, to the partners itself that you're working with, and also to drive the ecosystem drivers to drive the energy efficiency savings in your B2B2X portfolio. Lastly itself to drive the organizational strategy from your board, from your operations and also for their planning. Lastly, is to drive the investments of your networks itself to drive what types of investments that you're driving into your network, where, when and how?

So holistically in this whole portion, we believe that we need to look at sustainability and 5G in a very holistic manner, and we will drive effectiveness and efficiency of the network itself. And with that, I thank you. I'll give you – I'll hand it over back to Tim.