How Carriers Lost the Network Battle

Part One: How Carriers Lost the Network Battle

Open source technology set to challenge traditional network models

During this year's India Digital Open Summit, Pardeep Kohli discussed the challenges in mobile network economics. In his presentation, Mavenir's President and Chief Executive Officer revealed how open source innovation is shifting the mobile network paradigm, bringing robust opportunities for carriers through emerging technology. Kohli presented his findings and first-hand experiences over the course of his illustrious career in telecom. Read on for the transcript of his presentation which can be broken into three parts:

- *Part One: How Carriers Lost the Network Battle*
- *Part Two: How Carriers Can Win the Network Back*
- *Part Three: Keys to a Successful Network Future*

Part One: How Carriers Lost the Network Battle

I want to talk about how carriers can use Open Source to innovate new services. It's actually an interesting topic because carriers have been losing this game for the last 20 years.

And, if you look back, you know when things were very well defined, there was a PSTN phone (plastic), and you had a dial tone which carriers offered, and that service worked one hundred percent of the time, right? You picked up, heard the dial tone, and everything just worked. Back then, it was your 1G/ 2G services, it was a feature phone, or maybe not even a feature phone – but it had 10-digit numbers and you could make a phone call, maybe a short SMS – it worked great.

I think the game started changing when the network was smarter than the phone – until that time it was the network telling the phone you can only do these four or five things voicemail, SMS, MMS, or make a phone call and that's it. I guess it was about ten years ago when the iPhone & Android were released that phones became truly smarter, and that's when carriers actually started to lose the game.

Now, the phone has become smarter than the network.

And, in fact, the other problem is that the competition changed. So, I've been in the industry since 1990 working for the vendors. But, it's actually a very difficult problem now because carriers are regional. For example, Jio is the biggest operator in India, and, still just serving the Indian market. But now they are competing against companies like Google and Facebook who are serving the worldwide market. So, they can take their R&D dollars and spend on services to offer the *whole world*. Plus, they are adopting Open Source and other new technologies. On the other hand, carriers like AT&T or Verizon even if they are big, they are still only about one hundred million subscribers versus Google and Facebook can do billions of subscribers.

We together have another problem

But on top of that, we together have another problem. We talk about all the analytics foundation and all those open projects, but we have a boat anchor called 3GPP. Where five, six vendors get together – maybe a few thousand people from top players like Ericsson, Nokia, Samsung and they determine what is best for all of us. They determine that, for example, 5G should be implemented a certain way. And they come together and figure out the 3GPP spec. Then, only those vendors can develop it, and only they know how to answer those questions because they are the ones who came up with it in the first place. And the rest of the whole world now has to follow it? So, in a way it's actually very, very – unopen. Truth is, there's no openness about this whole industry because of the way it is constructed.

The most expensive parts of the network are still closed

Unless we change the game from the very beginning, we will only be playing on the edges. You know you can look at various examples which you know, still on the fringes, an SD-WAN and make it open, or EPC and make it open, but the biggest cost in the access/connectivity space is a closed circuit and very difficult to penetrate. So, I think unless it is cracked, it will be very difficult for a carrier to achieve the same level of success again.

Be sure to read parts two and three of this series here.

- *Part Two: How Carriers Can Win the Network Back*
- *Part Three: Keys to a Successful Network Future*