THE ROLE OF DATACENTERS IN THE REGION TO MEET FUTURE DEMAND



Moderator

Erik van Stokkom

Chief Moderator at CC/ M&A
at GTC





Keynote Speaker, Panellist

Charmond Tsang

General Manager at DCConnect Global Limited



Panellist (avin Wong

CEO & Co-Founder at Data Center First Pte Ltd



Panellist

Jens Leuchters

Managing Director at NewTelco GmbH



Panellist **Mundhir Al Raisi**

Senior Manager, Service Delivery & Traffic Management - Wholesale at OMANTEL



Panellist

Mayank Srivastava
CDO at BDx Data Centers



n this Panel Discussion, a group of connectivity experts discuss the current datacenter landscape in the region, as well as today's and future datacenters to meet market demand. The discussion also touches upon the partnership models between the datacenter and content providers to meet growth and customer demands.

Erik van Stokkom:

Mundhir, from the Middle East point of view, can you scope a little bit the landscape for the datacenters in your region, just to give the audience a little overview around the world of what we're talking about.

Mundhir Al Raisi:

Sure. As Charmond said, the demand is always there, sometimes they keep some of the data within their in-source datacenters, which are less sensitive or they can easily store or host somewhere in the third-party datacenters, which is being noticed in the region. We see with many small and medium enterprises in the region, the trend is to move to third-party datacenters or well managed or well-known datacenters, such as known trademarks in the region. This is simply because they want to get better investments in their IT systems and get rid of that hassle of managing it in terms of infrastructure and hands-on experience day-to-day. So they keep that or shift that trend into well known, managed datacenters in the region. I think that is increasing upon what we have seen in the past, at least over the last two years to two and a half years.

Erik van Stokkom:

Thank you very much. Jens, what are the characteristics of the current landscape, in not only Germany but also Europe?

Jens Leuchters:

Yes, sure. In his presentation Charmond made a couple of points that we did find in our research as well, that have also driven us to the position to build our new datacenter. Number one, there is certainly a market for small and medium enterprise customers that do not want to put all their applications, all their systems into a cloud. This could be for various different reasons. Maybe for a government reason, or they could simply want to still have their own IT infrastructure and run it. Normally, however, they don't have a good datacenter as we would call it a datacenter- it's very much still a server room. It's not very efficient from the energy point of view, and it's not very secure, which is something we explore. So that's one topic. The second point we found is the hybrid model. We see the hybrid model, of course. The cloud is all over and it has its place, its right, but not every customer wants to put everything in the cloud. So the hybrid model is a good way through, and a sure way to meet customers' expectations and their IT needs for sure. That is one topic that we are seeing as well. Another one for us as a traditional, neutral carrier provider- where our main source is the carrier. We don't realise that most of the time we do not know the end customer. Sometimes it is not a nice situation to be in, especially when it comes to service offering or you're getting a request, and you have no idea what makes or breaks a deal, because you don't get this information or enough detailed information. So for us, it was also necessary that we can build a new market. For us as NewTelco, it means that we also want to go after small and medium enterprises in the region, but of course not to compete with our customers that are our carrier customers, which are international carriers. That is another very important matter for us. We have to keep the neutrality somehow. And this is again. Also from our point of view, there exists a mandatory exercise for us as a provider to ful fil the carbon reduction needs that a country has. This is because we help to centralize from various small IT rooms into a very nice datacenter that is offering a very sustainable and good power usage efficiency, so we are helping to reduce this power usage as well. I think that's another goal, which we as a provider have to fulfil. We have to work on this. So we have to balance all these various dimensions, so that's why we are doing this.

Erik van Stokkom:

Thank you. Kavin, to you. Charmond was sharing with us already, the current landscape in Southeast Asia. Do you have anything to add, from a regional point of view?

Kavin Wong:

Yes. There's a couple of things that I would like to add to the whole discussion. As we see a lot of datacenter developments in Southeast Asia, where I am, I'm also beginning to see a lot of regional subsea cable developments. These are smaller subsea cable developments that are going on around our region to connect all the major cities. Singapore and Hong Kong. So these are very good, what I call convoluted developments of infrastructure. The two key infrastructures, and let me get down to the basics of infrastructure that will support the digital

economy going forward, is going to be: The datacenter which is like the pumping house for contents, and the fiber network. Not just any network, but the fiber network that will be able to leverage the kind of services DCC connectors talk about. To be able to connect from anywhere to anywhere else and not as a user, but as cloud applications that are functioning to support the user community. Now that is the evolution of the cloud, underlying it. That's what's driving all this change, and I see this as what is driving the datacenter requirement usage in Southeast Asia. It is the convergence of the subsea fiber, and the datacenters are growing together with it. I see this as a very interesting phenomenon and I use the term, edge to the hub because you cannot get the edge to the hub if you don't have cables to connect them. And that's the key. That's what I'm seeing going through. I'm hoping to find out whether that's the same in other regions, like in the Middle East, where Oman is, and other places in Europe.

Erik van Stokkom:

Okay. Maybe Mundhir, you want to add something to that?

Mundhir Al Raisi:

Indeed. That's what the main focus is on with the new submarine cables. It started, let's say 2016-17, and going onward. For example if you take a step back, as Kavin said, we had the datacenter on one side and the cable landing stations on the other side, and there was an effort and hassle to get them both connected. Now the trend is that we are landing directly into the datacenters, which we already did as a part of Equinix MC1. So we have (delete comma) the AAE-1 cable, which is directly landing into MC1 and all 19 parties, so the associated users are getting a benefit or making use of this facility. The gap has been breached, as one would say. Recently GBI, Gulf Bridge International has announced that they will have a presence in the MC1 as well, so this is the trend. As well as this, if you look at Marseilles, for example, AAE-1 also lands directly into Marseilles, therefore all the new upcoming cables will land into the new extended facilities of Marseilles. So with this, yes, the interconnectivity or the interconnection between the cloud or hyper scalers, or the usual carrier services operators, is bridging the gap and making it a lot easier for them. And also, of course, cutting down the interconnect costs as compared to the previous years. That's the trend moving forward. Datacenters also need to consider:

How is the usage of the energy on the carbon emissions due to the expanded demand on the datacenters. Especially now that it's not only the servers but also the power feed equipment that are hosted within the datacenters, which is the new upcoming trend. I won't say it is a challenge, but it's a matter to look at, as well in terms of reusing the energy within the datacenters.

Erik van Stokkom:

Okay. Thank you, Mundhir. Just before I go back to Jens and Charmond, Mayank, please anything to add to the current landscape, characteristics and trends you see?

Mayank Srivastava:

Indeed. If you take a step back, with countries like Indonesia with 250 million people, the Philippines with about 100 million people and the datacenter capacity- the sort of low single, low double digits. The Philippines is about 25, Indonesia is 35-40. Compare that with Australia, a country continent of 25 million people with the capacity worth of one gigawatt. So there is an enormous difference. And of course, while this is guided by a variety of factors, including privacy

which are actually there and which are rising and maybe even need to be intensified. Charmond, do we see new partnership models between cable operators and content providers and, what's your opinion and how do these partnerships meet the growth and the customer demand?

Charmond Tsang:

Thank you. Yes, I'm a strong believer in partnerships. I'm a devil's advocate. I live in the federated network. This is how we build our business. Not a single operator in the world can build thousands and thousands of PoPs in the world. No, not a single carrier can do that. So there's got to be a partnership. For us, each partner has its unique characteristic, has its advantage and disadvantage. Some partners are strong in Europe, some partners are strong in the Middle East, some partners are strong in Southeast Asia. We are strong in Southeast Asia. We are strong in China and Hong Kong. The thing is, if we want to provide an agile network to customers, we've got to be able to provide a service that covers the whole world. To do that, I need a partner to help us to build this big picture.

then all the information come back. I put all the information onto my portal so I know this partner has 500 PoPs there. Then I make an want to buy your service from your A datacenter to B datacenter for a hundred MG. How much is it?" I send an API call there, and then API comes back. This is the cost, \$1000, and I can quote to my client. Now, this ability allows me to form a partnership rapidly, to be able to give my customer a very rapid quotation, everything can be done at the fingertips. Now because of that, my rollout is very fast. I would be able to build my network with the right partner easily. The partner will see that as a benefit to them as well, because of this economic scale. "I've got a thousand datacenters, you have 50, so join us. Then we have 1050." Because we are sharing the resources, I open up my API to my partner, my partner uses mine and I use theirs. Because of that API economy, this is a different ball game, what comes to partnership. It's not the old way to do the traditional NNI anymore. This is something that I find very fascinating. This is the trend for surethat we no longer use the old way to exchange information. That's why we joined some, for instance, the Sonata protocol. The API standard is all right there. According to the standard, it makes it so easy for us to work with new partners together. This is how I see it. Networking partnerships through API is going to be a trend.

Watch the full video version of this Panel Discussion session on our CC-Media Portal: https://carriercommu- nity.com/ cc-webinar-live-recordings/

I'M A STRONG BELIEVER IN PARTNERSHIPS. I'M A DEVIL ADVOCATE. I LIVE IN THE FEDERATED NETWORK. THIS IS HOW WE BUILD OUR BUSINESS.

Charmond Tsang

and subsea cables as the other panelists pointed out. I think another key aspect that has to move in tandem with the content growing within these factories, the datacenters as they're called, is the edge network. A lot of these countries today are sort of still building up their networks and where my friend, Kavin, is going, the data will move from the edge to the hub and back and forth, but it also has to be consumed by the public, by the eyeballs as we call them. That sort of piece is the one that still needs some amount of building to do.

Erik van Stokkom:

Okay. Thank you. Let's move ahead, gentlemen, because Kavin, you quickly mentioned the partnerships,

Traditionally, it is very difficult. We talk about the NNI, talk about Layer 2, the Layer 3 protocol, how to integrate those. "My network legacy is not the same as your network. How do we connect these two networks?" It'll take a lot of time to build a partnership, but nowadays, we have API. We are now building a partnership with another API enabled partner in 2-3 weeks, and then it's done. What I mean by done is, physically you just connect Layer 2 and 3 servers. And then on top of that, you set up everything using the API, starting from using API to call the partner, "Hey, tell me all your resources, how many datacenter do you have? What is their location? What are their X, Y coordinates? Tell me.' I use the API call, send it over. And

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