The Future of Ethernet

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What I'd like to do today is to give you the projection of future Ethernet. I don't pretend to know all the futures but I know Ethernet's here to stay. Ethernet is global and Ethernet is ubiquitous. So that's why I want to share with you today one aspect of that, which is what we call in the industry first Carrier Ethernet exchanges.

Those exchanges interconnect the carrier networks together, and so that it delivered that ubiquitous and global experience for the Ethernet services as well as the actual network itself to becoming a dominant player in the Internet infrastructure going forward.

Back in early days of 2004 when we first defined the Carrier Ethernet back in MEF, and we always knew the interconnect of a Carrier Ethernet is a huge challenge to the success of global or even national deployment of Carrier Ethernet network and services. So we feel that that's where the vision of CENX is taking the shape. And that's why back in 18 months ago within MEF we've launched the Ethernet Exchange Committee, consists of service providers around the world and also that was why we initiated global interconnect initiative also in MEF and this is why we actually formed CENX, which stands for Carrier Ethernet Neutral Exchange.

And this is why I'm really pleased and excited to announce the first three Ethernet exchanges around the world and being open for business and being able to explain to you today why it's critical now and how CENX has actually come up with the innovative as well as unique solutions to solve the problem of connecting the networks together.

The success of Carrier Ethernet has its challenges. If you look at the chart which was projected by Infonetics, the Carrier Ethernet services revenue for service providers around the world is growing from $22b this year to about $40b by year 2013, so is a clearly explosive growth. And also the growth largely confined within each service provider's network. And the promise of national global Carrier Ethernet services is really somewhat unfulfilled and incomplete. And we've been observed at trend fairly obviously within the MEF and also global Carrier Ethernet service community. And here's why.

If you look at each of the service providers, and I only have a few logos up here, to try to connect every other service provider, this requires very costly, lengthy, not only technical but also commercial integrations. And that's in the industry become known as (inaudible) problem. And just to further illustrate the effect of such, you can see if you actually do that interconnection among 50 service providers, there are about 7,000 NIs, or network interfaces

need to be built. It's completely not scaleable. And with this type of interconnect requirement, when you start building global Carrier Ethernet networks where each service provider leverage other folks around the world in order to deliver the global coverage for their customers, this is becoming very unscaleable and economically impossible to get it done.

So what CENX is delivering is something much more simple and elegant and efficient to allow service providers to connected into selected strategic locations around the world to enable to connect virtually to any service providers that they like to be connected to. And it's a very efficient way in order to be able to deliver that user experience, end to end user experience around the world. And we're obviously pleased to deliver the first in the industry.

So what we're really announcing, we're really announcing the world first, three Carrier Ethernet changes are in New York, Los Angeles and Chicago. And also the fact that they are also initial exchanges in the three US locations doesn't necessarily mean that there's no international impact. In fact, LA has always been known for the international hub for Asia in terms of connectivity. So you could imagine that One Wilshire Buildings in LA consists of a tremendous amount of Asian carriers there. And that applies, that same applies too to the 60,000 in New York. That's where our locations are as well, in New York.

In Chicago is where we're connecting a tremendous amount of traffic either through South America as well as North America, particularly Canada is choosing Chicago, in fact, as a location to interconnect with other carriers.

And we're obviously pleased to see, there's the actual connectively is a lot more than just para-fibre interconnect everything or actually virtually connect everything. I want to talk about that a little bit more. But it's really the years of experience in creating the Carrier Ethernet itself and also developing standards in market, and also the implementing of the telecom interconnect, which is the team that builds experience over the last few years.

The three main components of CENX, the first one is CENX Market, which is the interface to allow the service providers to be able to buy and sell the Carrier Ethernet services. It's very visual, map-driven tools allow the buyers to be able to pinpoint where they wanted to buy and who is available, provide the service to particular locations in those buildings or in those assets, and can construct the maps, can construct the overall scheme and business proposal for their customers to be able to connect and leverage other folks' network to be able to deliver that Ethernet services ubiquitously around the world.

With that pretty picture and there's obviously a pretty complex system build behind there is hardware and software, and to be able to support the pretty user interface, allow people to do business or marketplace, and there's the significant amount of work behind the scenes to deliver this resilient, distributed and integrated system, allow the overall user experience to be perfect, so to speak.

And as far as the service goes, to service providers, there are four areas of services. And the first one is really the virtual connection [called] resilient virtual connection, which is really virtually connecting between different carriers around the world. And secondly is a unique service alignment which has really talked about how the service providers and services around the world are aligned when they interconnect.

As you probably know by now, all the service providers have different service definition as well as different SOAs associated with their services. And this is opportunity for them to be able to interconnect through CENX and without changing their services offerings, which is a huge benefit both from the economical as well as from the overall ease of use perspective.

And third is the flexible service inquiry and ordering systems, which is really to allow the service providers to be able to order services around the world easily with great user interface and experience, allow them to be able to eventually to deliver their services to customers transparently, whether or not they partner with one or ten. Other service providers around the world, (inaudible) deliver that service experience to their end customers.

Last but not least is a real time portal and management capabilities, allowing each of the service providers to be able to view as well as manage the services they buy or sold to the respective service provider of the partnership and to be able to manage that, to be able to deliver that user experience eventually if they choose to, to the end customers as well. So the end customers have a view of the end to end services without knowing how many service providers are actually in the middle to deliver that service experience. And the bottom line is it will really reduce the time to revenue for service providers to deliver services around the world from a month to days instead of today as a month or even a year to some extreme situation.
Looking at the two aspects of this, one of them is from a buying service perspective where the service provider in this illustration on the left, where the single connection to access all sellers of Carrier Ethernet services around the world.

It really increases revenue opportunities by 90% or more, depending on what statistic you will believe, but it's really a cost-effective way to eliminate or reduce most setup of time and reduce the operational cost by 55% or more. And because they can immediately connect you to any service providers they like once they have the physical connections established in one or more CENX exchanges.

And one important part, which is bullet number three, there is basically no change to buyers carrying Ethernet services, which is a huge plus. Any changes to any service providers services probably take up to a year or more to just change the services when you interconnect with others. With CENX in the middle you'd be able to do the mapping and the service alignment allow them not to change their services and deliver their experience to their end customers.

From the seller's perspective it's also very attractive. With a single connection, you'd be able to access the buyers around the world and increase the revenue opportunity by 50% to 100%. All of a sudden you have the entire world at your fingertips and they're looking at your property, which you already have. And also pretty much no or minimal cost for new revenues with the existing access in the footprint. Whatever the access you have in your footprint you'll be able to sell, if you choose to, to any service providers around the world to be able to buy that property. And also there's no change to sellers that carry Ethernet services as well. This is actually very important. And for them to cost effectively sell their property without changing their services every time someone a buyer to come along wanted to buy. So CENX do most of the hard work and allow the seamless connection between the buyers and sellers.

So there really, if you somewhat look at the overall key benefit for a service provider via CENX and doing business, it really is a — all the varieties of Carrier Ethernet services to be

able to inter-work smoothly and quickly without changing the existing services, that's probably the number one reason why people want to do business with the CENX and through CENX to buy or sell their Ethernet services. And also the new level of service order and assurance for Carrier Ethernet global interconnect is really you enable the SLAs end to end with a common set of reference or benchmark to be referenced to, and has a lot to do with Carrier Ethernet centre standardisation down by work of MEF.

Also we remove that entire burden of interconnect of the service providers. While you enable them to continue to differentiate themselves in terms of the services they're offering, and in making it easy for them to expand their footprint or sell their footprint via CENX. So we're obviously very pleased to offer that, and we have customers pleased to work with us on that particular regard.

Just to summarise the overall values that we have done. Really we've opened the first three Carrier Ethernet exchanges in New York, Los Angeles and then Chicago. And also brought to you by the very experienced team who actually developed the Carrier Ethernet and MEF with very, very good leaderships as well as the knowledge of the Carrier Ethernet at this business for last eight or nine years. And also the approach we have taken really results in the interconnecting in days rather than a month. One of the key goals of mine personally as well as the MEF in general, when I first started, is really making Carrier Ethernet ubiquitous around the world. And I certainly still believe in it and I stick to it. And with that, I want to thank you very much for your time and attention.

By Nan Chen, President & CEO, CENX
(Courtesy: NetEvents)