# THE SHAPE OF THINGS TO COME



What are the big things to look out for in 2017? Michael Wheeler, executive vice president of the Global IP Network business unit at NTT Communications, reflects on the current state of play for his company and the wider carrier industry around the world, and looks at some key trends and challenges for the coming year.



#### Q: What does NTT Communications see as some of the main focuses for itself and the industry at-large in 2017?

A: One is network security. The challenge in that area is so broad and far-reaching, covering everything from identity theft to large-scale denial-of-service attacks that take down parts of the internet infrastructure. It's a critical issue, and I think the industry still faces a challenge in making sure everyone takes it as seriously as they should and takes proactive steps to address this area.

The second is 100G deployments. We really saw in the second half of 2016 a large uptick in our customers moving to 100G ports. The technology has been around for a while, but factors including the capex cost structure and generational timing on hardware have really caused people to more aggressively adopt it. Every indication is that this will continue in 2017 and into 2018 as well.

### Q: What other industry trends do you foresee this year?

**A:** Another, broader-reaching subject is the level of cloud proliferation within businesses. There are all kinds of companies, large and small, using applications that are only available when

they're connected to the internet, which is driving in the direction of cloud-based services. When you start to also have large-scale government deployments in areas such the armed forces, it really adds credibility and reassurance.

In addition, we're seeing more and more penetration on the "edge" in terms of where data sits, into tier-2 and tier-3 markets. The underlying driver for this is user experience: if data goes further out to the edge, the experience is much better.

### Q: What's NTT Coms current approach to expanding its own footprint?

A: As well as being in traditionally large internet-centric markets, we regularly look at new opportunities to give a broader reach to customers. In terms of new markets, there's a standing list of locations that we look at regularly, particularly if we can identify a few large cornerstone customers wanting to be there that can build a beachhead into that market.

## Q: You previously talked about the potential of Latin America as a future market for new points of presence. Has NTT Com come any closer to doing that?

A: While we don't have anything to announce today, we are making solid progress. I've personally been involved in a number of site visits in Latin America over the last few months and we're in the middle of our business analysis process currently. There are two locations in particular that we're fairly keen on, but we're not ready to say where they are yet. As things stand, I think that we're on-track to announce some developments in this area by year end.

### Q: Can you shed further light on how 100G has been growing?

A: In terms of a year-on-year comparison, between December 2015 and December 2016, our volume of 100G ports deployed by customers grew well over five times. I think we'll certainly see a similar growth curve going forward for this year. Much of this comes down to cost, with people now seeing the financial benefits of switching over to 100G.

### Q: How is NTT Com moving ahead with combating security threats?

A: We've been very proactive with our toolsets and product offerings for customers. We have our core product, DDoS Protection Service, for which we're now in the middle of doing tests on some additional capabilities that we'd like to roll out by mid-2017. In addition, our customers can use some of our blackholing capabilities. Each customer has unique needs so we are focused on providing a wide range of tools that meet their specific requests.

We're also a provider to several of the larger DDoS mitigation companies out there and we work with them very closely as they grow. In addition, we play a proactive role in several industry groups, such as NANOG [the North American Network Operators' Group], to help address these issues. Collaboration is key in this industry for combating some of these threats.

### Q: How promising are things looking for carriers in 2017?

**A:** In broad terms, there are parts of the carrier world that are doing great, parts that are fine, and parts that are probably suffering. But anything that's data and internet-related is doing relatively well. There are many broad indicators showing that this part of the industry has lots of room to grow.