

Moving Customers to Tiers

By Tim Young

A few months ago, U.S. cable giant Comcast announced that it would suspend the 250GB-a-month data cap it had in place for its residential customers, and would instead experiment with other ways of dealing with excessive data use. Specifically, the MSO announced that it will be trying out various forms of tiered data service, under which the floor would be raised for all consumers (300GB instead of 250), and additional service tiers or usage charges would be added on top of that threshold.

This is the latest step in Comcast's bandwidth pricing vision-quest. The cableco instituted the 250GB cap back in 2008 after its much-publicized run-in with regulators over charges of bandwidth throttling. However, in a display of how much user behavior has changed in the few years since that cap was put into place, it's worth noting that back then even detractors of the cap called the allowance, "relatively high". Now 300GB is the bottom floor, with soaring usage potential beyond that. Granted, most residential users never came close to hitting that 250GB mark, and certainly aren't likely to top 300GB, but the level of bandwidth-sucking, over-the-top content that has become commonplace in the time since makes it clear that data capacity is still a major issue for service providers.

In fact, it's worse than that. It's not that some users



are in danger of exceeding that bandwidth cap. It's that lots of users might be in danger of heading that way. "It's video, video, video," said Jonathon Gordon, director of marketing for Allot Communications, a bandwidth management vendor. "Video is skyrocketing. Fixed or mobile, it's the same issues." Cisco predicts that internet video consumption will more than quadruple by 2016, at which point more than 1.2 million minutes worth of video will be coursing through the internet every second.

This glut of video traffic has not been entirely unforeseen, but it isn't the climate in which Comcast instituted its bandwidth caps, necessarily. Back then, carriers were being bowled over by massive data spikes, but from a different, more localized, source. "Five years ago it would have been P2P, with a small percentage of users eating massive amount of bandwidth," said Gordon. "Now instead of 10 percent of your users using 80 percent of your bandwidth, you have 100 percent of your users using

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500 percent of your bandwidth.”

And mobile providers are facing the same troubles, thanks to devices that facilitate a richer mobile video experience. “If you have all of your users on the best available speeds and all-you-can-eat data,” said Oisin O’Connor, product marketing manager with Openet, a policy control solutions provider, “you quickly run into problems once the smart phone penetration rate in your area runs above 20-30 percent, and in some markets it’s through 50 and heading to 60 percent.”

The major issue here is that bandwidth hogs are no longer a small cadre of tech-savvy super-users being subsidized by everyone else. Now the bandwidth hogs are all around, and it isn’t a question of if some manner of control is necessary, but rather how to go about instituting these controls.

Caps are one method, but, as Comcast has found out, they can be less-than-ideal. “It’s a very aggressive step to move over to caps from an unlimited world,” said O’Connor. The shift can be jarring, and can generate a fair amount of blow-back in the form of customer churn or negative PR.

Furthermore, on the mobile side, data caps, says Gordon, don’t fully address the issue. “A data cap doesn’t actually solve the problem of abuse,” noting that many users operating within the confines of monthly usage limits at the same time can still cause trouble. “It’s about spikes in usage on a particular cell site that mean you can’t serve anyone else.”

So instead of focusing on caps, service providers may be better advised to go straight to some form of service tiering. “As we like to say around the office,”

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said O’Connor, “It’ll all end in tiers.”

Granted, moves to tiered pricing aren’t always pleasant. The all-you-can-eat bell pricing can’t be un-rung, and some subscribers will naturally be unhappy with the notion of paying for something that used to be unmetered. A quick glance at some of the ad campaigns put forth by mobile providers in the U.S. would also reveal the downside of being among the first to try to wean customers from a habit of unlimited data: other providers will certainly attempt to poach subscribers, though the efforts are clearly short-term solutions.

However, O’Connor argues that the shift doesn’t have to be painful. “What most operators have done is phase out unlimited tariffs and place promotions and subsidies on your capped tariffs.” Along the way, these carriers also institute tiers that provide various usage profiles and payment structures which allow some users to actually pay less while others pay more. “The argument is that you’re introducing a level of granularity that will allow a better fit between consumption and payment,” said O’Connor.

However, the extent to which a clear case for that granular fit can be made depends a great deal on what kinds of service tiers a provider is facilitating. Certainly tiers can be based on simple data usage,



but that's really a pricing question with only a modicum of data management and charging needed for the service provider to differentiate the elite users from the rank and file.

There are, however, other ways to build useful service tiers that differentiate data at the application layer to distinguish between types of data in a quantitative, rather than simply a qualitative, manner. Once this level of data visibility is achieved, all sorts of tiering options emerge.

For example, Gordon notes the case of Latin American carrier Movistar, which instituted levels of service based not on the amount of data used, but the type of data used. Basic plans allowing web-based email can be had for less than a standard data plan, with additional tiers for users who want additional services. Perhaps a user can pay a little more for a plan that includes access to Facebook or other social networking sites. For a little more, that customer may be able to stream video. The options are numerous.

Other tiering/prioritization use cases include an example O'Connor mentioned of Singtel, where users can pay more for priority data access during peak operating hours. And, of course, users across all access technologies are increasingly able to select service tiers based not on overall consumption, but on network speed.

Of course, memories of dust-ups over throttling and net neutrality do beg mention of the legal and regulatory concerns surrounding data prioritization and other policy control matters. Fittingly, vendors like Openet tend to defer to the provider in such matters. "Our view is that we sell our software to mobile operators and it's up to them how they use it in different markets," said O'Connor. "For example, our software is used in certain Middle Eastern countries to enforce time-of-day restrictions around prayer time."

And so it is with issues like net neutrality. In many European countries (O'Connor mentions The Netherlands, one of the first countries to adopt strict guidelines on the matter) net neutrality requirements are dependent upon the contract offered by the provider. That is, if the contract restricts certain types of content, the user must abide by those restrictions, wider neutrality concerns notwithstanding. In this way, even this topic leads to an opportunity for providers to divide and differentiate service in new and different ways to meet the needs of the user while maintaining profitability and overall network capacity.

We all know that all-you-can-eat data is a thing

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of the past. But what is the future? Carriers have the ability to differentiate different types of data in ways that they never have before. With all of these sophisticated tools available, the feasibility of bandwidth caps is immaterial. Tools exist to offer different classes of data at different times of day to different users at different speeds. With these options available, perhaps there is a way to bring tiers to customers without bringing customers to tears.