Global Mobile Data Traffic Forecast, 2011 – 2016: *Up, up and up some more*

Market Study
Second Quarter, 2012

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Abstract

This report forecasts global mobile data traffic for 2011 to 2016 period. *iG*R estimates that in 2011, approximately 433,000 terabytes of mobile data traffic flowed over the world's cellular data network networks per month. By 2016, forecasts mobile data traffic to rise to nearly 7 million terabytes per month.

*iG*R's mobile data traffic model estimates the amount of bandwidth (in MBs) consumed by a given activity – e.g., checking email, listening to streaming music or watching streaming video, checking social sites, etc. *iG*R has estimated the traffic generated on a per application/use basis and that necessarily means a reliance on average values for how much bandwidth these various activities consume along with an average for how many times in a given time period an end user engages in the given activity. Inputs for the traffic model are taken from *iG*R's extensive end user behavior data.

To create our traffic forecast, *iG*R built usage profiles based on our primary and secondary consumer and enterprise research over the past several years. We divided connections into four different categories: light, medium, heavy and extreme. A connection corresponds to a device and connections can exceed subscribers. For example, a mobile worker in North America might have three devices – a smartphone, laptop and a tablet. A consumer might have two (a smartphone and a tablet) or a mix of non-smartphone, smartphone, tablet, laptop and/or mobile hotspot.

Generally speaking, the larger the device, the more bandwidth is consumed on it. That is, a laptop connection will likely generate far more traffic than a smartphone. This is primarily because a laptop is far more conducive to heavy usage than a smartphone and is typically used in a place where the user is stationary and disposed toward consuming/generating a great deal of data traffic. That said, the advent of streaming video and audio applications (Pandora, Netflix, HBO Go, Amazon Cloud Player, etc.), not to mention YouTube, makes consuming hundreds of megabytes on a smartphone quite easy. The key difference, of course, is that the laptop user could be multitasking among several different high-traffic applications whereas the smartphone user is typically only engaged in one, maybe two.

It should also be noted that seemingly minor changes in per day, week or month mobile data consumption can greatly impact average bandwidth consumption. For example, starting to watch a single streamed episode of a TV show per week on a smartphone could easily equate to an additional 350-500 MB of usage per month.

These bandwidth numbers and usage profiles were used as the baseline for the global mobile data traffic model and forecast.

Key questions addressed in this report include:

- What consists of mobile data traffic?
- What is mobile data usage like today?

- How does mobile data usage change over the forecast period?
- What are the drivers of mobile data traffic growth?
- What are some differences in mobile data use by geographic region?

Who should read this report?

- Mobile network operators
- Mobile network equipment manufacturers
- Smartphone and tablet OEMs
- Application developers
- Financial and investment analysts.