

Making an Opportunity Out of the Data Problem

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As network congestion continues to dominate industry debate and discourse, Scott Cotter, Senior Director of Marketing at [Novarra](#), discusses how mobile data optimisation solutions may offer an immediate answer to an ever-growing problem



Now that the dust has settled on another Mobile World Congress, the industry is left to reflect on the key trends from this year's event. Undoubtedly, applications took centre stage, with the prominence and success of the inaugural App Planet an indication of how fundamental the entire ecosystem views them to the future of the mobile industry.

If apps were the predominant theme of this year's show, then the impending network data tsunami was certainly the key issue. This is not surprising: the rise in apps and Internet browsing - a direct result of the growth in Smartphone usage - combined with the surge in mobile broadband and the rising popularity of mobile social networking, has finally propelled mass-market adoption of Internet offerings and services on the mobile platform. AT&T recently reported that data traffic has increased 50-fold since the introduction of the iPhone, with 3% of smartphones responsible for 40% of network traffic. Similarly, according to statistics from Vodafone, data traffic is now 2.5 times voice traffic. O2 recently reported that data traffic is doubling every four months.

Explosive growth

This explosive growth of mobile data usage is now overloading the operators' networks to the point where their reliability and, crucially, quality of service is suffering. O2's reported series of data outages towards the end of last year and AT&T's capacity constraints in major metropolitan areas are high-profile examples of this. The industry has been so focused on driving mobile Internet use, it seems surprising that operators did not anticipate the strain which this would ultimately place on network capacity. The roll-out of 4G and LTE technologies are touted as the solution, but there are two problems with this. Firstly, the examples of O2 and AT&T highlight the immediacy of the issue. Verizon Wireless went on record earlier this month to state that its first 4G-ready handsets would not be ready until mid-2011, while Telefonica was, until recently, only

piloting its 4G network. Secondly, regardless of the timeline for roll-out, new spectrum acquisitions and the deployment of additional base stations are no longer sufficient or economically sustainable to meet shifting usage patterns and ever-growing subscriber demand.

As an example, Cisco is predicting that by 2013, video – much more bandwidth hungry than today's typical apps and mobile web - will comprise 64% of data traffic. This highlights how data traffic will continue to grow faster than the capacity growth afforded by new technologies such as LTE. Simply put, we should learn from the 2.5G – 3G transition that we can expect data consumption to grow rapidly and fill the capacity of the pipe.

Effective options

While there is no one single solution to the problem, there are immediately-available and effective options outside of infrastructure investments for operators looking to capitalise on the revenue opportunities presented by mobile apps and the mobile Internet.

One such route is through mobile data optimisation solutions, which offer financial benefits for the operator, while simultaneously enhancing the end-user experience. Such solutions use content transformation, compression and network layer efficiency improvements to enable operators to deliver double or triple the amount of data using their existing radio access network (RAN) and backhaul network. Recent data from a third party study commissioned by Novarra demonstrates that one operator in a developed market reduced over-the-air payload from 31.7 TB (terabytes) to 4.18 TB per month across its mobile Internet user population.

The Novarra study further quantifies the financial benefits for operators who implement data optimisation techniques to address network traffic growth. Operators of HSPA networks can extend time to capacity depletion from just 12 months to 30 months. LTE network operators can service more than twice as many subscribers with the same build-out of cell sites. Aside from providing an immediate solution to the growing bandwidth crunch, these immediate savings are critical in the current economic environment.

Data optimisation

The industry is just starting to recognise that there are viable and immediately- available options, aside from network offload and costly network build-outs, which can serve as effective antidotes to the network malaise. Resolving the issue of congestion will require the deployment of a variety of techniques - mobile data optimisation is at the top of the list for immediacy and return on investment. As all-you-can-eat data plans give way to tiered offerings or peak hour restrictions, consumers will appreciate the ability to get reliable, high quality mobile web and multimedia services as a result of data optimisation. At the same time, operators will lower opex costs and defer network investments to improve the bottom line and continue down the path of stemming voice ARPU decline with profitable data services.

You can access the Novarra study, 'Profiting from the Mobile Data Tsunami' [here](#).