# Tech therapy for smartphone-stressed mobile operators

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A smartphone showing a Skype application at the 3GSM World congress in Barcelona, on February 14, 2011. It is not an easy time for mobile operators -- smartphones have touched off a data traffic explosion without revenues to match, but a little tech-therapy is at hand at the mobile phone industry's annual get-together in Barcelona this week.

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At the mobile phone industry's annual get-together in Barcelona this week dozens of companies were offering technical fixes to help mobile operators ride the data wave instead of being drowned in a traffic tsunami.

The challenge mobile operators face is formidable.

Sales of smartphones have rocketed over the past few years with nearly half a billion of them now out there, and with each generating up to 24 times as much data traffic as a regular mobile phone the volume of network traffic has exploded.

The network firm Cisco is forecasting it to grow 26-fold by 2015.

Yet operators have had trouble making much money out of data, with many initially offering "all-you-can-eat" plans for a fixed price to encourage take up of the service.

The costs for mobile operators to expand their networks to keep up with data traffic growth through 2014 are estimated at 86 billion euros ($116 billion) by A.T. Kearney consulting firm and, at current trends, they will end up 21 billion euros short.

Content providers currently pay little to support the networks, but having them share more of the burden has become embroiled in the politically-sensitive "net neutrality" debate.

So mobile operators have only the option of "turning to the end user" to find the needed resources, according to Jean-Sebastien Grail, an analyst and Booz&Co consultancy.

Many operators have already ended their unlimited data plans, but this risks stunting the development of the market, and it is not easy for operators to put smartphone users on data diets, as T-Mobil learned in Britain last month.

It initially announced it was slashing monthly data allowances by at least half, only to have customer anger force it to say a day later that the

change would not apply to current subscriptions.

But technical advancements to networks could help operators get more out of their networks and open up new revenue streams, and is a major focus for companies at the Mobile World Congress in Barcelona.

Network equipment manufacturer Nokia Siemens Networks is showing off technology which it says will allow operators to connect five times as many smartphones to their networks by making more efficient use of available transmission space.

A number of companies are offering technology to help make networks smarter.



Microsoft chief executive Steve Ballmer speaks during the 3GSM World congress in Barcelona, February 14, 2011. It is not an easy time for mobile operators -- smartphones have touched off a data traffic explosion without revenues to match, but a little tech-therapy is at hand.

"Intelligent networks would discriminate between traffic, allowing operators to give priority to certain kinds of traffic, and the possibility to charge higher prices to some customers who are willing to pay for

priority service, such as gamers or companies," said Sonny Waheed of network optimisation technology company Tellabs.

Other companies are focussing on improving transmission of bandwidth-hogging video, which is already the most popular mobile application and which Cisco expects to account for two-thirds of traffic by 2015.

"From a technology perspective there are a number of steps that can be taken to enhance the way video is carried and reduce the overall burden" on networks, said Paul Gainham of Juniper Networks, which is offering video optimisation technology this year at the MWC.

Israeli firm Flash Networks says its technology lets operators determine which traffic is flowing through its networks and optimise its flow through congested cells.

"With a variety of tools we can optimise traffic without compromising user experience," said Flash Networks' Merav Bahat.

The technology allows data traffic savings of 40 percent for video, and provides at least 20 percent operating cost savings for operators, she said.

The analysis of traffic and patterns allows the storing of popular videos near users, meaning quicker starts and less freezing during viewing.

With 50 percent faster downloads "you end up with more satisfied and loyal customers" said Bahat.

Better knowledge of customer traffic also gives operators the chance to insert themselves again into mobile browsing by offering a more personalised experience, and if they can direct traffic to commercial websites they can earn fees from businesses, she said.

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