

Keep taking the tablets

Tablet PCs were the undisputed stars of the CES 2010 show. But most of them, particularly those based on Google's Chrome OS, will only be fully functional when connected to the internet, leading to concerns about the ability of existing wireless broadband services to cope. This is where spectrum sharing schemes such as the FCC's Whitespace Radio initiative might come in.

A recent ABI study found that the number of permanently connected non-handset devices, such as tablet PCs, will increase 55 fold in the next few years. Current cellular networks will certainly not be able to cope with the forecast growth in data traffic. Even with today's relatively low data usage, it's common to hear complaints from smart-phone users about poor 3G data rates and coverage. LTE will only double data capacity, a very welcome improvement, but nowhere near enough.

Of course, a few devices - like the iPhone and some Android phones - offload some data requirements to WiFi, but this is only effective if you happen to be in range of an access point. In fact, the most viable solution is to make more sub-2GHz, long-range capable spectrum available for broadband. Many studies indicate that, while fully allocated, this spectrum is lightly used even in crowded urban areas.

The FCC's Whitespace Radio initiative defines a robust way for new devices to share access to this valuable, but underused resource. This disruptive new technology offers a myriad of new opportunities and challenges for service providers to serve the rapidly growing demand for wireless broadband, and for equipment makers to create the technology that will make it possible.

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CAPITAL TRANSPORT

Despite what they say, Londoners - like many capital city dwellers - are fortunate to have a selection of travel modes available to them. This means that they can switch mode - say, from the tube to a bus, or from a taxi to foot - if faced with a problem. However, there is still much that could be done to improve end-to-end journeys, and the timely availability of personally relevant information is key.

Currently, travel information from a variety of sources must be pulled together by the traveller themselves. A major improvement would be a single source covering all modes of transport, but this would be costly and, if the history of centralised information systems is anything to go by, it wouldn't inspire great levels of confidence.

A pragmatic approach is to bridge the gaps with existing systems, using - for example - social networks as travel planning tools. Popular networks like Facebook and Twitter are already used in this way amongst groups of friends, but could be expanded to serve wider groups of people, such as parents of children at a school, or an office car-sharing scheme. But it is the en-route, mode-specific, real-time information that is key. Recent developments in mobile internet access, together with the popularity of smart-phones and other connected devices, may provide us with ways to get it to the 'cloud' seamlessly and 'mash' it together in useful ways.

Tapping into new technologies could make good transport links even better, providing information that supports end-to-end journeys and not just the parts travelled by public transport.

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