IT Analysis

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ITAnalysis - Who dares, who wins?

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When once apparent archrivals such as Vodafone and O2/Telefonica say they are working together, some may wonder just how bad things are. The recent culmination of their Radio Access Network (RAN) sharing plan might seem like either a knee jerk cost cutting move in challenging economic times, or merely a communication techie's dream of playing with bigger networks. The reality however is more subtle and actually RAN sharing could offer pretty widespread benefits.

To see how the announcement might work in practice, it is necessary to look at a simplified typical mobile network infrastructure model. Mobile operator networks are comprised of a core with all the billing, subscriber details and services, connected to hundreds or even thousands of mobile phone masts by 'backhaul' links. These masts or 'cell towers' are festooned with antenna and are dotted around the operator's territory to provide radio coverage. Each tower might typically have up to three antennas per radio access network type – i.e. 3 for 2G, 3 for 3G etc – and three antennas use about as much power per day as the average detached house.

However, that is per operator, and in competitive landscapes, multiple operators may put their antenna on an existing mast, or if local planning permission permits and needs demand it, put up their own cell towers. The problem is that a lack of in-country roaming capability between different operators means that a phone often sees a mobile network, but not always the one it is supposed to be subscribed to. All the subscriber can then do is make emergency calls.

Each operator assesses how many towers it needs and where to put them based on the terms of their license (usually there is a minimum geographic coverage obligation) and how much money they can make from the services they offer. When you add in the varying lifecycle stages of different wireless technologies – some mature and saturated, some emerging – it creates a complex challenge, and network coverage often comes down to balancing technologies, population densities and budgets.

The upshot is that in a country like the UK, while there are more than enough masts and antenna to theoretically provide complete national coverage several times over, the mobile operators have deployed networks that mostly, but irregularly, overlap, leaving coverage gaps. Total coverage for all handsets only exists in the 'intersection' of all operators coverage maps (for those remembering their Venn diagrams). In research conducted in 2008 by Quocirca, a third of small and medium sized businesses (SMBs) said their employees struggle with mobile coverage at work, and almost half think that employees probably have coverage problems at home.

So what does RAN sharing do? It cuts down the number of masts and antenna required in total, allows the cost of deploying new masts to fill gaps to be shared, while the pooling across different technologies and operators extends the reach of each with a 'union' of coverage maps. In effect "more with less", and will even allow some masts and antenna to be removed. It should mean operators engaged in RAN sharing can cut their costs, extend the coverage available to their subscribers and reduce the environmental impact – in both planning and energy terms – of their network of masts.

There are implications of course. The backhaul connectivity will need some augmenting with increased capacity, and rival operators will need to ensure they can separate the traffic and customers – this is after all not a business merger, but a sharing of certain defined physical and virtual assets.

It is also a very significant shift in emphasis, which should benefit all subscribers, and not just because of improvements in coverage and less cluttered views across the countryside. For too long operators have focussed on the wires, base-stations, masts and antenna as being their most important assets when in reality they are simply

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basic requirements and the network itself is not a differentiator.

The most valuable asset operators have is their subscribers and the business opportunity to be able to offer network aware services to them. Mobile operators are now showing signs of starting to recognise this, and treat their networks as the utilities they really are. This does not mean that the mobile operators have to become a simple 'bit pipe', but that they have to recognise the difference between the value of the plumbing and the services it is used to deliver.

As this shift in emphasis continues, businesses should see more sophisticated mobile service propositions as well as improvements in coverage and pricing. RAN sharing should not only deliver a 'win-win' for the operators concerned, but their customers as well.

About Quocirca

Quocirca is a primary research and analysis company specialising in the business impact of information technology and communications (ITC). With world-wide, native language reach, Quocirca provides in-depth insights into the views of buyers and influencers in large, mid-sized and small organisations. Its analyst team is made up of real-world practitioners with first hand experience of ITC delivery who continuously research and track the industry and its real usage in the markets.

Through researching perceptions, Quocirca uncovers the real hurdles to technology adoption – the personal and political aspects of an organisation's environment and the pressures of the need for demonstrable business value in any implementation. This capability to uncover and report back on the end-user perceptions in the market enables Quocirca to advise on the realities of technology adoption, not the promises.

Quocirca research is always pragmatic, business orientated and conducted in the context of the bigger picture. ITC has the ability to transform businesses and the processes that drive them, but often fails to do so. Quocirca's mission is to help organisations improve their success rate in process enablement through better levels of understanding and the adoption of the correct technologies at the correct time.

Quocirca has a pro-active primary research programme, regularly surveying users, purchasers and resellers of ITC products and services on emerging, evolving and maturing technologies. Over time, Quocirca has built a picture of long term investment trends, providing invaluable information for the whole of the ITC community.

Quocirca works with global and local providers of ITC products and services to help them deliver on the promise that ITC holds for business. Quocirca's clients include Oracle, Microsoft, IBM, O2, T-Mobile, HP, Xerox, EMC, Symantec and Cisco, along with other large and medium sized vendors, service providers and more specialist firms.

Details of Quocirca's work and the services it offers can be found at
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