



Improving connectivity in Ireland – Challenges, solutions and actions

ComReg Media Release – 30/11/2018

The Commission for Communications Regulation (ComReg) today published the results of three studies which together discuss some of the challenges, solutions and actions to improving connectivity in Ireland. The three reports published are:

- *“Meeting Consumers’ Connectivity Needs”* by Frontier Economics (Document 18/103b). This report and accompanying infographic (Document 18/103a) provides an overview of the challenges in providing connectivity for consumers in Ireland and outlines actions that can be taken by all stakeholders, including consumers, industry, government and ComReg, to optimise the levels of connectivity given these challenges.
- *“Future Mobile Connectivity in Ireland”* – by Oxera Consulting with Real Wireless (Document 18/103c). This report considers the future mobile connectivity services likely to emerge in Ireland and the estimated costs of providing connectivity to such services at high coverage levels in Ireland.
- *“Coverage obligations and spectrum awards”* – by DotEcon (Document 18/103d). This report examines options as to how appropriate coverage and rollout obligations could be included in future spectrum awards.

In addition, ComReg has published an Information Notice which summarises the key messages and recommendations in these studies:

- *“Improving connectivity in Ireland – Challenges, solutions and actions.”* – ComReg Information Notice (Document 18/103).

The purpose of these studies is to assist ComReg in its development of award proposals for its forthcoming spectrum awards¹ and, in particular, its consideration of appropriate coverage obligations.

¹ In June 2018, ComReg set out its preliminary view that four spectrum bands should be included in its next spectrum award. These are the 700 MHz Duplex, paired 2.1 GHz, 2.3 GHz and 2.6 GHz bands. Source: ComReg Document [18/60](#), Proposed Multi Band Spectrum Award, June 2018.

Key messages from these studies are that:

- Good solutions for indoor connectivity include the use of Wi-Fi and native Wi-Fi calling on a fixed broadband connection, and the use of licence-exempt mobile phone repeaters. By ensuring widespread access to high-speed fixed broadband connectivity, the NBP is clearly critical to the penetration and uptake of Wi-Fi and Native Wi-Fi calling services.
- It seems feasible for the market by itself to increase the 30 Mbit/s mobile broadband (MBB) coverage from current levels to at least 90% of the population (where people live) in the period up to 2025. Achieving this coverage level would also provide significant incidental coverage improvements for other coverage dimensions (geographic, motorway, primary roads) and for the 3 Mbit/s and voice service, increasing this service to above 99% population and above 90% geographic coverage.
- Very high levels of 30 Mbit/s MBB coverage on a geographic basis would not be achieved by the market itself as this would require networks to have two to four times as many cell sites as exist today. This could take many years to achieve and the overall cost to stakeholders would likely be substantial.
- Policy or regulatory interventions could be used to secure more extensive coverage outcomes that would result from marketplace competition alone. These would need to be carefully designed, and based on an assessment of the costs and benefits to society of the additional coverage sought.

The 30 Mbit/s MBB service modelled in these studies is a mobile service and is not the same level of service outlined in the NBP service requirements which are notably higher (see editorial note below).

Commenting on these studies, Jeremy Godfrey, ComReg Commissioner stated that:

“People in Ireland want to use mobile devices for voice and data services, whenever they need to and wherever they are. One of ComReg’s aims is to support them to the greatest extent practical. The reports we are publishing today give information about the role that fixed and mobile networks can play in achieving this vision, the likely amount of mobile coverage that would be achieved through market forces alone, and the estimated costs involved in delivering additional coverage.”

Over the next several months, we hope this information will enable a constructive discussion about policy and regulatory interventions that could secure more extensive connectivity that may be demanded by end-users, especially indoors, in rural areas and along major transport routes.”

ComReg Information Notice 18/103, and the three consultants reports (Documents 18/103b, 18/103c and 18/103d) can be found in the publications section of the ComReg website www.comreg.ie

Interested parties are encouraged to read and consider these reports.

ENDS

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Notes to Editors

ComReg commissioned these reports to inform its consideration of future **mobile** connectivity. Therefore, it is important to note that the 30 Mbit/s MBB service modelled by Oxera would **not** deliver the level of service outlined in the NBP service requirements which are significantly higher. The Oxera model is based on providing a 30 Mbit/s MBB service **outdoors** and **to a single user** at the cell edge and does not take into account requirements² in the NBP service specification such as the need to:

- provide an indoor service - at the cell edge and for many other buildings, additional equipment would be required to provide service indoors;
- provide a reliable, high quality and consistent service for end users - the Oxera model does not take into account (i) the capacity demands of a mobile network where multiple end-users compete for the same resources in the cell, or (ii) the minimum NBP performance standards such as an upload speed of 6 Mbit/s or a service availability of 99.95%;
- be future-proofed, so that there is a cost-effective way to meet the growing demands of end- users for increased bandwidth and higher speeds over a 25-year time period; and
- achieve universal coverage within the specified time frames – the estimated network rollout time to extend a mobile network can be considerable, particularly given the need to more than double the number of cell sites, which will require commercial negotiations and planning permission even before construction begins.

Connectivity in this context describes the ability of users and their devices to connect and communicate with each other and their networks. They are fundamental to all of our everyday lives. Connectivity can take different forms, with many different networks and devices being used, increasingly seamlessly, to communicate and consume content and use applications in the course of a typical day.

² [Ireland's Broadband Intervention Strategy](#), updated December 2015

Native Wi-Fi calling significantly improves indoor voice connectivity for mobile devices. It is particularly relevant for Ireland given the challenges in providing mobile connectivity to all premises and the use of modern building materials which can significantly impair the availability of radio signals indoors. With native Wi-Fi calling, calls and texts on a smartphone, rather than going through the mobile network directly, instead use the available Wi-Fi connection. In Ireland, eir is the only mobile operator that currently offers this service³, although ComReg notes that Vodafone is reportedly planning to introduce a similar service in the near future.⁴ As support for native Wi-Fi calling increases to solve indoor connectivity, and consumers become aware of the usefulness of native Wi-Fi calling, one would expect competitive pressure to encourage at least all of the main operators to offer this service.

³ Wi-Fi calling on [eir mobile](#) .

⁴ Vodafone switches on VoLTE (voice over LTE) service on its network, [Irish Independent](#), July 2017.