



Broadband & Mobile in Northern Ireland

INTRODUCTION TO THE TELECOMMUNICATIONS MARKET

- The UK telecommunications market is fully privatised and competitive and is independently regulated on a national basis, by the Office of Communications (Ofcom).
- Government investment in telecommunications is possible, but has to be undertaken with caution, to avoid distortion of the market and to comply with European Commission broadband and competition regulations and guidance.

RESPONSIBILITIES

What the Department for the Economy (DfE) can do

- We have powers under the Communications Act 2003 to make investments which are important to Northern Ireland.
- We can improve:
 - The extent;
 - Quality;
 - Reliability

of telecoms networks and services, where the market has determined it would not be financially viable to do so.

What DfE can't do

- We cannot specify particular technology solutions, to do so could be a breach of European Commission State Aid regulations.
- We cannot compel network operators to invest in particular areas, or deliver services at particular prices.
- We cannot intervene in disputes between service providers and their customers.
- We cannot determine policy, as that responsibility has been retained by the UK Government.

What Ofcom can do

- They are responsible for ensuring that there is appropriate competition in the market place.
- They have legal duties to ensure the UK has a wide range of communications services, including high-speed services such as broadband and that it is used in the most effective way.
- They are here for the general protection of the consumer, from unfair practices.

What Ofcom can't do

- They cannot intervene in disputes between service providers and their customers. More information can be found here <http://consumers.ofcom.org.uk>



BROADBAND TECHNOLOGIES EXPLAINED

Broadband can be delivered using a range of technologies. This includes:

Fixed Line

- Delivered over existing telephone lines, or cable TV lines, using a mix of fibre optic cable and copper wire. The speed of the connection is affected by the distance between the premises and the exchange or cabinet.

Satellite

- A satellite service is usually delivered when a fixed or wireless service is not available.
- Satellite broadband is an essential means to deliver faster internet access for rural communities, businesses and individuals.

Fixed Wireless

- Uses radio waves to provide a broadband service to customers. This is a “line of sight” solution which is used in difficult to reach locations where fixed line broadband is not available, due to cost or physical limitations.
- It is used extensively as a cost-effective, high speed option for delivery of broadband services in remote locations.

Mobile

- Mobile broadband is wireless internet access delivered through mobile phone masts to computers, mobile phones and other compatible devices.

MOBILE TECHNOLOGY EXPLAINED

What is a Dongle?

- A dongle is a small USB device that allows you to access the internet with a 3G or 4G mobile broadband connection. It can be referred to as a dongle, internet stick or USB network adapter. Dongles are popular because they offer greater flexibility than fixed line connections and can be used on the go.



mainly for voice services and basic data transmission.

What is 3G?

- It is the third generation of wireless technologies. Its main enhancement over previous wireless technologies is high-speed data transmission. 3G is mostly used by mobile phones and other mobile devices as a means of connecting to the internet.

What is 4G?

What is 2G?

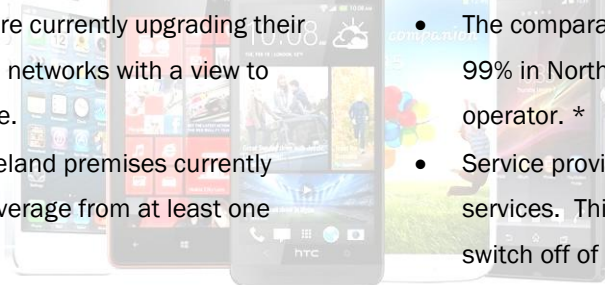
- It is the second-generation wireless telephone technology. 2G networks were built

- It is the fourth generation of mobile phone communications and is a successor to 3G standards. 4G provides ultra fast mobile broadband internet access.

FACTS ABOUT BROADBAND

- Broadband is measured in 'bits per second' the speed at which information can be transferred (broadband is defined by Ofcom as 'always on' and providing a bandwidth greater than narrowband connections i.e. over 128Kbps).
- It is through a mix of technologies that ensures that a broadband service is available everywhere in Northern Ireland.
- Broadband speeds can be affected by a range of factors which include distance between an exchange and customer premises; number of users simultaneously sharing a service (this is known as "contention"); and the type of internet browsing activity a customer is undertaking. Other things that can affect a service are electrical interference caused by other household items and the capacity of computer and router equipment used.
- Consumers should carefully consider their requirements. Ofcom publishes guides that may assist and are available from <http://consumers.ofcom.org.uk>
- There is no existing obligation on telecoms operators to ensure that every customer has a fixed line broadband service. However, the UK Government is pursuing the introduction of a broadband Universal Service Obligation. This will give people the right to request an affordable broadband connection, at a minimum speed, from a designated provider, up to a reasonable cost threshold.
- Approximately 99% of premises in Northern Ireland are able to get a broadband service of 512kbps (kilobits per second) using fixed line broadband.
- 94% of broadband connections in Northern Ireland are achieving speeds of 2 Mbps or more*.
- Many premises in Northern Ireland have the option of subscribing to Superfast Broadband (24Mbps or more). This has been attributed to the roll-out of FTTC technology by both the Department and BT.
- 38% of Northern Ireland's broadband connections are via Superfast Broadband.*
- Broadband speeds in Northern Ireland are amongst the highest in the UK at an average speed of 28.3Mbps

FACTS ABOUT MOBILE

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- Service providers are currently upgrading their existing 2G and 3G networks with a view to increasing coverage.
 - 99% of Northern Ireland premises currently have 2G mobile coverage from at least one operator. *
 - The comparable figures for 3G coverage are 99% in Northern Ireland from at least one operator. *
 - Service providers are also deploying 4G services. This has been made possible by the switch off of analogue TV, creating space for more mobile traffic. These upgrades were completed in 2015.

WHAT HAS BEEN ACHIEVED

- The Department funded both fixed wireless network expansion and satellite broadband across Northern Ireland for consumers unable to avail of broadband services via a fixed line. Speeds of these services range from 10 to 100 megabits per second and are readily available from a number of suppliers.
- Project Kelvin - This project has given Northern Ireland its first direct international telecoms link. Businesses across Northern Ireland can access Kelvin's international connectivity, through existing local telecoms networks.
- The Department also supported the Logon ni service which assisted Small/Medium Businesses (SMEs) in Northern Ireland.
- Over the period February 2014 to March 2016, the Northern Ireland Broadband Improvement project brought more choice and improved broadband speeds to over 45,000 premises across Northern Ireland. It also introduced a Satellite Broadband Support Scheme to cover the cost of installation and commissioning of a satellite broadband service for businesses and residents unable to access services through the current expansion of 'fibre to the cabinet'. This £23.7million project was jointly funded by the Department, BDUK, DAERA and the EU.
- The Department supported a project delivered by BT which resulted in an upgrade of 1265 cabinets, to deliver next generation broadband services to at least 85% of businesses across Northern Ireland.

THE FUTURE

- Plans for 2015-2017 have been published on our website, following extensive public consultation. The Key priorities for the action plan, which can be accessed at www.economy-ni.gov.uk/articles/continuing-connect-telecoms-2015-2017 are to complete ongoing investments in broadband infrastructure to improve access to services; seek out and secure additional funding for further projects where needed; and deliver a programme of engagement with industry, local government and community stakeholders to ensure that Northern Ireland is fully exploiting the benefits of its telecoms infrastructure.
- The UK Government has signed an agreement with the Mobile Network Operators which will see £5bn of private sector investment going into the mobile networks to deliver guaranteed voice and text coverage from each operator across 90 per cent of the UK geographic area by 2017; an increase in full coverage from all four mobile operators to 85 per cent of geographic areas by 2017; and, reliable signal strength for voice for each type of mobile service (whether 2G/3G/4G).
- The Superfast Rollout Programme is a c£17 million project funded by the Department, BDUK and BT. This project aims to deliver superfast broadband services, to 39,000 additional premises across Northern Ireland by December 2017.