

## INCA Response to DCMS Consultation on New Build Developments: Delivering gigabit-capable connections

V1.1 21 Dec-18

<https://www.gov.uk/government/consultations/new-build-developments-delivering-gigabit-capable-connections>

The consultation seeks views on the requirement for all new build residential developments to be equipped with full fibre digital connections. This proposal was set out in the Government's Future Telecoms Infrastructure Review.

### Introduction

INCA welcomes the opportunity to respond to this consultation.

INCA's members will have specific individual responses to the full consultation. This short response is based on INCA's work over the past year to establish the INCA Gold Standard Quality Marks for Full Fibre, Fixed Wireless, Hybrid and Wholesale networks. In the course of this work we have consulted widely with members through the QM Working Group and with other associations with an interest in the sector, including the LGA, FCS, CAI and others.

The overall picture is that there is no single 'go-to' source of guidance for local authority planners, developers or indeed operators to ensure that 21<sup>st</sup> century digital infrastructure is built into new build developments from the earliest planning stages.

As well as responding to the specific questions posed in the consultation, we also have made further comments and summarised our overall stance at the end.

### Answers to Specific Questions

Consultation question 1
Do you have any further evidence on the state of New Build Development connectivity in the UK?

The report published by INCA "Metrics for the UK altnet sector"  
<https://www.inca.coop/altnet-metrics-point-topic-2018> is referenced in the consultation in 1.5

### Consultation question 2.

Do you have any information or evidence to suggest that the costs developers would incur under the proposed policy would prevent homes being built?

The cost for including gigabit connectivity is lowest when this is included at design and planning stage. This means that overall, it is the most cost-effective solution. For all solutions, the customer eventually pays, whether in the price of the house or as part of the price of the connection. The best solution for the customer is, therefore, to do it at this early stage.

Developers must install infrastructure for other utilities: water, electricity, sewerage and the connections to the main networks (or other provision). This does not appear to be a blocker for building houses: rather an essential part of the development without which the homes would not be fit for purpose or saleable.

Provision of gigabit connectivity should be considered in the same light. The cost of such provision is lower compared to the other essential utilities which is not considered a barrier to building.

Any marginal cost for the developers is more than outweighed by the added value of the houses and avoiding disruption at a later stage when the networks are installed after the development is finished.

In today's market, good provision of connectivity is an essential for purchasers and this will impact sales for developments not so equipped. Developers should be seeing this as a given essential and not an added cost.

### Consultation question 3.

We propose that developers would be obliged to provide a simple connectivity plan for their developments to LAs. This plan would demonstrate that developers had consulted with at least two network providers to provide gigabit-capable networks and inform LAs when a site is connected. Do you have any comments on this proposal for a connectivity plan?

It is obvious that including the correct infrastructure for proper connectivity at the design and build stage is far more cost-effective than adding it later. It therefore follows that including it at design stage is essential and Building Regulations are an important element in this.

Given that the policy and regulatory position for digital infrastructure is to encourage competitive investment, it would **not** make sense for developers to consult only one

provider during the connectivity planning process. We therefore support the proposal to consult at least two providers.

If non-terrestrial TV distribution (e.g. cable TV) is being considered for the development, then this should also be planned at the same time.

#### Consultation question 4.

- (a) Do you agree with the assumption that deploying the necessary infrastructure to deliver gigabit-capable networks is best achieved when the site is being built?
- (b) What technical specifications should the physical infrastructure (ducts etc) have?
- (c) Do you agree that developers should deploy, and pay for, the necessary infrastructure from the in-building connections to the boundary edge of the development?

(a) Yes. Provision of the correct infrastructure in New Build developments is as important as getting the design right in the home.

(b) There are principles of design for a fibre network which are common to all networks whether they are Point-to-Point or Point-to-Multipoint. If such infrastructure is included at the time of building the development, then it is easy and cost-effective for network providers to use it to install their fibre network across the development.

Some individual networks have published their own guides for developers which shows that such an approach is valid and used by the construction industry. However, this can have the effect that only that one network is allowed for in any particular development. This has the potential to reduce the ability of other networks to access the same consumers.

The previous BSI PAS 2016:2010 laid down some generic guidance for infrastructure design and build for developments but advances in technology now means an update and comprehensive expansion is required.

For example, there are more network operators actively building networks now than when the PAS 2016 was prepared. New guidance should be prepared to include this in local development requirements.

Further, today's FWA (Fixed Wireless Access) technologies can provide gigabit connectivity speeds and should be considered at planning and design stages.

The correct time for this to be considered is at planning and design stage so the planning process can ensure this is done – as long as the correct guidance is available to Local Authorities. This point has been raised by the LGA.

(c) The costs for this essential utility infrastructure should be on the same principle as the costs for other utility infrastructure. If the developers pays for these, then they should pay for connectivity passive infrastructure also.

**Consultation question 5.**

(a) Do you agree that developers should have to engage with at least two network operators who can provide gigabit-capable connections to the development?

(b) What further measures could we consider to promote the availability of networks from multiple providers at an early stage to minimise costs and disruption?

(a) Yes

(b) Mandate two independent ducts to be laid at the same time. The cost is marginal and it allows two independent operations. If the passive infrastructure is there, then it avoids extra cost and disruption at a later date when an operator wants to install fibre.

Even if no operator can be found at the time, then having the infrastructure there and ready will be a much better solution than having to install ducts at a later stage.

Inclusion of the connectivity requirements in the planning process.

Provision of overall guidance (expanded and updated PAS or similar) to make the requirements understood by all concerned as part of a necessary and desirable approach to new-builds.

**Consultation question 6.**

Taking £3,000 as a suggested aggregated cost cap per premise, how should costs be divided between developer and operator?

**Consultation question 7.**

What information and evidence can you provide to help refine the 'in scope sites' policy design choice - aggregated cost cap or number of premises?



#### Consultation question 8.

- (a) Do you agree that developers should have the overall responsibility to ensure Gigabit connectivity for their developments (allowing for the fact that developers can oblige operators to connect using the 'duty to connect' provision).
- (b) How would this policy affect small housebuilders?

(a) The Local Authority should have the responsibility of including it within planning requirements. It is then the responsibility to ensure that proper provision is made, as with the other essential utilities.

(b) The cost and work are marginal compared to the other utilities. As with large developers, small housebuilders need to consider this an essential utility provision to avoid losing sales.

Conversely, if all housebuilders have to include this provision, then there is a level playing field and no housebuilder will be disadvantaged.

The requirements for gigabit connectivity should be included whether the development is a single dwelling or a major estate.

#### Consultation question 9.

Do you have any comments on the proposed legislative approach? Do you have an alternative solution that would deliver gigabit-capable connections to NBDs?

An additional enabler is including it in the planning process so that the requirements for the right infrastructure are included in any permissions for both individual new homes and new estates and new MDUs (multiple dwelling units). The same principles should apply to premises intended for commercial use, business parks and the like.

As the consultation makes clear, In the 21<sup>st</sup> Century, there is no excuse for any development which requires planning permission not to have provision for proper connectivity infrastructure.

## Further Comments

### In-Home

Planning digital infrastructure should extend not only to "vanilla" connectivity but also the other digital services being supplied to the same premises: television and other interactive services. In today's technical environment, TV is delivered on an internet connection, media companies deliver internet connectivity via their cable networks, smart TVs access services relying on a good internet connection and the proliferation of personal devices means that pretty much any service can be consumed in any room by any resident.

In-home networks need to be capable of distributing all these services effectively.

The role of wireless should not be excluded both for distribution to each premise and also within the home. From some perspectives, it is better to have a cable connection to each device but in today's world, that's no longer practical, particularly when taking account of multiple personal portable devices, be they tablets, phones or watches. As the Internet of Things becomes more prevalent, there will be many more devices in each home and office that will need good connectivity.

That means that establishing a good wi-fi signal in each room needs careful planning. Competing networks and modern metallic insulation imply that a mixed cable / multiple wi-fi access points will be needed and hence considered at the design stage of the dwelling or premise.

If an in-home network is not designed with these needs in mind, the risk is that the gigabit connectivity delivered to the premise will not be available fully to the consumer and to all the connected devices.

### **Guidance - Current Situation**

Many different industry bodies have taken the initiative to look at necessary standards and guidelines. Some of these are given in the Annex.

There is, however, no single source of overall guidance as each organisation has looked at those specific aspects with which it is involved. For example, it is scarcely surprising that the Guidance for Developers for, say, Network A, only refers to equipment and services from that operator and does not enable the build-out of Network B in the same passive infrastructure.

Moves to include gigabit connectivity within Building Regulations should be seen within this context. It's an important initiative but addresses only one part of the issue.

Thought should be given to an overall standard which references these individual items and provides overall guidance to achieving gigabit connectivity all the way from the core networks to each device that needs it within a home or office – whether new build or retro-fit upgrade.

A previous set of guidance was published as a BSI Publicly Available Specification (PAS 2016:2010).

### **Benefits to Overall Specification**

An overall specification would have benefits over and above the application of Building Regulations. It would provide guidelines for what should be considered at each stage of the process of planning and delivering connectivity to a new home, development or business premise. It would give the right information to the right audience so that connectivity requirements are catered for at the right stage in the process.

Local Authorities could use such a document to define what should be included in their local plan to guide applications for planning permission. The Open Access principles for Wholesale Access under the BDUK National Broadband Scheme can be applied particularly where any public funding is involved.

Developers and Architects would refer to such a document to ensure that the requirement for gigabit connectivity was taken care of at the earliest – and cheapest – stage: the original design.

Network Builders and Operators would have confidence that they could extend their networks to the new build and retro-fitted developments cost-effectively and quickly to the benefit of those consumers. It would be much easier for them to include these developments in their build-out plans.

Infrastructure built to these guidelines will support open access and thereby benefit competitive supply. An open access infrastructure does not lock people in to a given operator.

Consumers in these homes and businesses will have access to a wide variety of services so they can choose the services they wish from a choice of networks.

### **Summary:**

The inclusion of gigabit connectivity principles in New Build Developments via Building Regulations is an important step.

Other key points:

- Encouraging gigabit connectivity by retro-fit.
- Encouraging gigabit connectivity for businesses.
- Gigabit connectivity in-home requires gigabit connectivity to the home, hence
- Gigabit networks are needed to and within the developments.

Many industry players have created guidelines and documents which cover their particular area of expertise but there is little or nothing that covers the whole piece in an integrated manner.

Provision of an overall set of guidelines encompassing new build, retro-fit, homes and businesses will enable Local Authorities and Developers to include gigabit connectivity as early and as widely as possible.

A BSI PAS is one such method which has been supported before and funded by BIS. Improvements to technologies and the calls for such guidance from bodies such as the LGA mean that that time is ripe for a new cross-industry initiative supported by government.

INCA has held discussions with a number of industry bodies in this area. INCA believes there is appetite for a collaboration to create an overall set of standards to enable gigabit connectivity from initial planning to successful delivery.

INCA therefore believes that such a project would contribute to the wider adoption of gigabit connectivity to the home and in the home thus supporting policy objectives.

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Date: 21-12-18



## Annex

### Standards and Codes – Connectivity to and in Homes

INCA Gold Standard

<https://www.inca.coop/quality-mark/standards>

Network Charter – FluidOne and INCA

DTG (Digital TV Group) In-home Connectivity Guide

<https://dtg.org.uk/publication/in-home-connectivity-guide/>

HQM (Home Quality Mark) – s11.3 Smart Homes (developed by BRE)

<http://www.homequalitymark.com/standard>

CAI Codes of Practice

COP 01 Installation of Terrestrial & Satellite TV Reception Systems (MDU & Commercial)

COP 04 Installation of Home Networks

<https://www.cai.org.uk/index.php/contact/downloads/codes-of-practice-and-regulations>

MHC&LG, DCMS, DEFRA, DECC 2014 Better Connected: a practical guide to utilities for home builders.

<https://www.gov.uk/government/publications/better-connected-a-practical-guide-to-utilities-for-home-builders>

BSI PAS 2016: 2010 Next generation access for new build homes – Guide. Supported by BIS. Has a section on New build developments

NICC Network Interoperability Standards

<http://www.niccstandards.org.uk/>

BDUK NBS 2013 Scheme Open Access Wholesale Requirements

[http://ec.europa.eu/competition/state\\_aid/cases/243212/243212\\_1387832\\_172\\_1.pdf](http://ec.europa.eu/competition/state_aid/cases/243212/243212_1387832_172_1.pdf)

Openreach Developer Handbooks, Copper and Fibre

<https://www.ournetwork.openreach.co.uk/property-developers/developer-handbooks-and-extra-services.aspx>

Virgin Residential New Build

[https://keepup.virginmedia.com/Content/networkExpansion/doc/New\\_Build\\_Developers\\_Guide.pdf](https://keepup.virginmedia.com/Content/networkExpansion/doc/New_Build_Developers_Guide.pdf)

<https://www.virginmedia.com/lightning/network-expansion/property-developers>

FTTH Council Definitions

[https://www.ftthcouncil.eu/documents/Publications/FCGA\\_Definition%20of%20Terms\\_Revisions\\_2016.pdf](https://www.ftthcouncil.eu/documents/Publications/FCGA_Definition%20of%20Terms_Revisions_2016.pdf)

CEDIA BSI Code of Practice – Design and installation of telecommunications and broadcast infrastructure within the home.

<https://www.cedia.co.uk/standards>

**Other schemes**

WiredScore

Broadband Forum – Fixed Access Network Sharing