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ERICSSON RESPONSE TO THE OFCOM CONSULTATION "FUTURE BROADBAND — POLICY APPROACH TO NEXT GENERATION ACCESS" OF 26TH SEPTEMBER 2007

<u>Introduction</u>

Ericsson welcomes the opportunity to respond to this consultation. Ericsson believes that the deployment of higher bandwidth communications networks, both fixed and mobile, have the potential to deliver very significant levels of economic and social benefit.

Ericsson supports long term stable regulation that enables investment and innovation in telecommunications infrastructure and services.

Ericsson believes that there are sufficient available access technologies to allow competition between service providers, and that, if given fair and equitable conditions, no specific technology will gain a dominant position. To encourage the benefits of innovation it is important that no inequitable restrictions be imposed on new access network investments, regardless of technology. Whilst it is recognised that widespread fibre deployment may be an ideal long term solution for fixed services, Ericsson is also committed to help introduce wireless broadband technologies in all markets, in order to enable mobile broadband services and to enable "fixed" broadband services where fibre is either very expensive to deploy or may be deployed only after a long delay. The continuing evolution of wireless broadband towards higher bit rates is enhancing the ability provide viable complementary broadband solutions.

Ericsson does not globally support or promote any specific solution for access regulation, believing that the most appropriate way forward will be contingent on local market conditions.

Answers to specific questions

Question 1: When do you consider it would be timely and efficient for next generation access investment to take place in the UK?

Much of the argument in the consultation rests on the notion of "efficient investment" which is defined as "the right technology at the right time in the right location". Whilst it is difficult to argue with this in the abstract, in practice it is not clear how anyone would know if the technology being deployed was "right or wrong", or if the timing was "right or wrong" or if the location was "right or wrong" – in general the investor would aim to make the "right" investment but the final judgement can only ever be made in retrospect.

There is also the issue of the level of aggregation; it is possible that "timely and efficient" investment for any individual player may be much later than for the UK as a whole, with significant implications for future efficiency and competitiveness.

Deployment of NGA in the UK will represent a very significant level of investment - much of the discussion and analysis so far has addressed the potential implications of investing "too late" in NGA, however we believe the implications of investing too soon should also be considered.

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It would be a poor outcome for the UK if there were to be very substantial investment in fixed infrastructure in a particular generation of NGA technology only to find that it relatively quickly becomes obsolete in terms of the bandwidth that can be delivered.

There are access technologies such as WDM PON, which will be capable of delivering very high bandwidths, such systems will be sufficiently developed for commercial deployment within four or five years. Before then, fibre to the kerb and GPON technologies can be used for green field sites and to address "not spots" where DSL systems either cannot reach or can only deliver very low speeds. These early deployments of fibre can then later be migrated to WDM PON. Broadband wireless can be used to address areas unsuitable for fibre systems.

Question 2: Do you agree with the principles outlined for regulating next generation access?

The principles outlined for regulating next generation access seem to be reasonable. However, whilst agreeing with the principles in the abstract, there is a concern that, in practical application, they may prove to be either mutually conflicting or possibly inappropriate in the light of later market developments. Also, the consultation and these principles seem to have been derived with a single NGA network structure in mind, rather than giving serious consideration to a patchwork of multiple networks using a range of technologies, which would seem to be a more realistic scenario.

To some extent the consultation is based on an extension of the current "equal access" approach where the bottleneck is assumed to be the access infrastructure itself. However, the advent of NGN/NGA could result in the emergence of new bottlenecks that are not addressed by this approach – e.g. local caching could become a significant issue. Also it may be inappropriate to assume the access link is one technology or even one provider.

Question 3: How should Ofcom reflect risk in regulated access terms?

Levels of risk involved with NGA investment will clearly be variable – early investment will carry more risk than later investments, investments in densely populated areas will carry less risk than investments in areas of sparse population. Investment in green field sites probably caries the lowest risk of all at least in terms of take-up of existing services over the new infrastructure.

In principle the option of allowing the owner of access infrastructure to set access terms on a non-discriminatory basis seems attractive but does not completely guard against margin squeeze and may not be appropriate for an "access infrastructure only" operator.

The idea of combining this approach with an "anchor product" is interesting but needs much more detail and consideration of how this would implemented – for example, what happens if the anchor product becomes obsolete?

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Question 4: Do you agree with the need for both passive and active access remedies to promote competition?

It is unlikely that NGAs in the UK will be homogeneous. In terms of technology there is likely to be a mix of copper, fibre, co-ax, radio and satellite, in terms of topography there will be widely differing population distributions served with radically different implications for the level of competition that can be supported.

Also, given the rapid rate of technology innovation and the lengthy timescales involved in the deployment of fixed infrastructure, it would seem unlikely that any particular fixed network will be built entirely using a single technology, although this may not be the case for a network based on radio technology.

Given this likely diversity, there may be a case for a more symmetrical approach, Ericsson notes the EU proposal to promote sharing of civil works such as ducts and cabinets without reference to market dominance.

Within this diversity it seems clear that a "one size fits all" approach to regulation is inappropriate – the regulatory framework must be sufficiently flexible to cater for multi-technology, multi-topology networks and to be technology neutral.

Ofcom's observation that NGAs may offer the ability for greater differentiation for service providers using active wholesale products is an attractive notion, but is as yet unproven.

Question 5: Do you consider there to be a role of direct regulatory or public policy intervention to create artificial incentives for earlier investment in next generation access?

It seems to be very doubtful that the market alone will result in the deployment of NGAs that give full UK coverage. Also, market forces will result in deployment to the most attractive areas in advance of those offering lower returns. So without some form of intervention, there will be some people who get access to NGA later, possibly very much later, than others and there will be those who never get access to NGA.

The issue then is one of inclusion and the extent to which a digital divide, temporary or long term, is acceptable. This is really a policy rather than regulatory matter.

However it seems reasonable to conclude that, if a digital divide is not accepted, then intervention will be needed at some point.