1st December 2008

ERICSSON'S RESPONSE TO THE OFCOM CONSULTATION "DELIVERING SUPER-FAST BROADBAND IN THE UK"

Introduction

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 access technologies available 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.

A short discussion of Ericsson's views on general issues arising from this consultation is set out below, followed by more detailed responses to Ofcom's specific questions.

General issues

Technology neutrality, business models and substitutability

As is suggested in the Caio report, the future broadband networks will not be monolithic, either in terms of technology or operator, and that the most likely outcome is a patchwork of local and national networks deploying differing technologies. Within this context, the Ofcom consultation, although paying passing reference to other technologies, seems to be overly focused on national deployments of fibre based solutions. In particular, technologies such as mobile broadband, satellite, DWDM PON and point to point fibre, deserve equal consideration alongside current generation PON, fibre to the cabinet and cable systems.

As part of considering these alternative technologies in an equitable manner, it is essential that sufficient suitable spectrum is made available for the wireless technologies and that this spectrum is made available without undue delay. This is particularly important in the light of the recent Analysys Mason report showing that providing the last 30% of the population with fibre-base super-fast broadband will cost as much again as the first 70%. These figures suggest that wireless technologies will play a greater part in the UK next generation network than has previously been expected.

It is important that regulation is derived in such a way as to be neutral towards these alternative technical solutions and, given that the "winning business models" are not yet clear, it is important that premature assumptions are not made about substitutability between these alternatives.

Regional flexibility

It is highly likely that differences in geography and demographics will result in different technologies being deployed regionally. This may require a flexible regional approach in order to avoid market distortion – for example the availability of suitable spectrum, such as that offered by the Digital Dividend, will impact the viability of wireless solutions which have great potential to offer cost effective coverage in some areas. Failure to ensure the availability of suitable spectrum will significantly distort the market.

Interconnection

It is essential that a patchwork of local and national networks deploying differing technologies does not result in a patchwork of isolated islands. To avoid this it will be necessary to develop interconnection standards at all layers of the business model. In particular, it is important to try to prevent economies of scale in interconnection and provisioning from creating barriers to entry.

This point, along with the other issues raised above, becomes even more important given that, in the medium term, the issue of inclusion and universality will have to be addressed.

Responses to specific questions

Question1 - Is there further evidence available on the applications and services or consumer benefits that may be supported by next generation access?

Ericsson believes that the UK is now poised at the beginning of a new chapter in the mobile revolution as high data rate mobile broadband access services become a reality.

With the migration from cellular voice to data centric usage and the introduction of "flat rate" tariffs for mobile broadband access services, we are now seeing consumer take up curves similar to those of first generation fixed line broadband (ADSL).

In Sweden where the mobile broadband market is slightly ahead of the UK in terms of timing, we are seeing the following developments:

- 78% of new broadband subscriptions are mobile
- 14% of all mobile subscriptions are now mobile
- 20% of new mobile broadband subscriptions are cancelling their fixed broadband service.

In the UK, 3 have publicly stated that they have delivered over 600,000 mobile broadband units in the last year, and they estimate that two thirds of these are being used at fixed locations.

Within this context, where mobile broadband is becoming recognised as a fast growing reality, rather than a market projection, there are two essential issues which can be addressed by regulation. Firstly it is necessary to ensure the availability of sufficient spectrum to meet the demand for mobile services and to prevent spectrum scarcity from holding back and distorting

the market. Secondly, to ensure that the demand for mobile broadband can be met by services provided at affordable prices, it is essential that the spectrum used is internationally harmonised so that economies of scale can deliver affordable infrastructure and terminal devices.

Question 2 - Who should lead on defining and implementing a process for migrations to and from next generation access networks? What roles should industry, Ofcom and other bodies play?

Industry has the major role to play in defining and implementing a process for migrations to and from next generation access networks. However, it is not always easy for industry, with a wide range of competing players, with differing levels of available resource, to achieve a balanced and co-coordinated approach. The role of Ofcom and other bodies such as the Broadband Stakeholder Group, should be to facilitate the emergence of such a balanced and co-coordinated approach.

Question 3- What role is there for Ofcom in the ongoing debate on next generation access versus industry's role in progressing this debate through multi-lateral and bi lateral discussion?

Ofcom has a role to play in coordinating and facilitating the debate.

Question 4 - How far does current regulation, including market definitions, equivalence and the BT's Undertakings, need to evolve as result of next generation access deployment?

It is highly likely that differences in geography and demographics will result in different technologies being deployed regionally. This may require a flexible regional approach in order to avoid market distortion – for example the availability of suitable spectrum, such as that offered by the Digital Dividend, will impact the viability of wireless solutions which have great potential to offer cost effective coverage in some areas. Failure to ensure the availability of suitable spectrum will significantly distort the market.

Question 5 - How important are passive products such as forms of sub-loop unbundling and duct access? Can the economics of these products support the promotion of effective and sustainable competition at this level? Which passive products should Ofcom pursue?

Passive products may play a part in the creation of competitive markets, however such competition will be difficult to sustain if the underlying economics are not soundly based.

Question 6 - What are the characteristics of high quality, fit for purpose active wholesale products? How far can active products with these characteristics support effective and sustainable competition?

Next generation access networks may offer the ability for greater differentiation for service providers using active wholesale products, this is an attractive notion, but is as yet unproven.

Question 7 - Are there other options for promoting competition through regulated access that have not been considered here?

There are new technologies such as WDM PON, which will be capable of delivering very high bandwidths, such systems will be sufficiently developed for commercial deployment within three or four years. These systems have the advantage of potentially offering a new form of unbundled access, by virtue of supporting each end user on a different wavelength and so allowing wavelength unbundling. Ericsson currently provides GPON systems which incorporate filters, allowing them to be easily upgraded to DWDM PON without impacting the existing GPON functionality.

Also it is not clear that Ofcom has taken full account of the complementary nature of mobile broadband services as they evolve towards significantly greater access speeds. In particular, since the “winning business model” for super far broadband services is not clear, it is important to not make premature assumptions about substitutability of different access technologies.

Question 8 - How far may options for joint investment provide greater opportunities for competition based on passive inputs? Are there lessons that can be learned from similar ventures in other industries? What are the risks and advantages of such approaches?

There may well be opportunities for joint investment, particularly where underlying economics are unlikely to create infrastructure competition or even any infrastructure at all.

Question 9 - What should be the respective roles of Ofcom and industry in defining and implementing product standards?

Industry has the major role to play in defining and implementing product standards. However, it is not always easy for industry, with a wide range of competing players, with differing levels of available resource, to achieve a balanced and co-coordinated approach. The role of Ofcom should be to facilitate the emergence of such a balanced and co-coordinated approach.

Question 10 - How far do stakeholders consider the pricing approach outlined here of pricing flexibility for active products and cost orientation plus considerations for risk is appropriate at this stage of market development?

No comment.

Question 11 - Will indirect constraints allow for an approach based on more price flexibility for active products? How will such an approach affect the incentives of different operators to invest and deliver super-fast broadband services to end customers?

No comment.

Question 12 - What period of time would be appropriate for such an approach to ensure a balance between the need for longer term regulatory certainty with the inherent demand and supply side uncertainty in super-fast broadband and next generation access?

No comment.

Question 13 - What are the key factors that could make a review of any pricing approach necessary?

No comment.

Question 14 - How far can the generic model for transition outlined here deliver both incentives to invest in next generation access while ensuring existing competition is not undermined?

No comment.

Question 15 - What triggers would be appropriate for the commencement of any transition process?

No comment.

Question 16 - Once triggers or circumstances for transition are achieved, what would be an appropriate period for the various phases of transition (consultation, notice period, transition)?

No comment.

Question 17 - Over what geographic area should any process of transition be managed, for example region by region or nationally?

It is highly likely that differences in geography and demographics will result in different technologies being deployed regionally. This may require a flexible regional approach in order to avoid market distortion.

Question 18 - What actions, if any, should, Ofcom undertake to support new revenue models from next generation access?

No comment.

Question 19 - What role should public sector intervention have in delivering 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 some level of intervention will be needed at some point.

Question 20 - Are these the right actions for Ofcom and other stakeholders to be undertaking at this time? What other actions need to be taken or co-ordinated by Ofcom?

No comment.