Title:

Mr

Forename:

David

Surname:

Hall

Representing:

Organisation

Organisation (if applicable):

David Hall Systems Ltd

What do you want Ofcom to keep confidential?:

Keep nothing confidential

If you want part of your response kept confidential, which parts?:

Ofcom may publish a response summary:

Yes

I confirm that I have read the declaration:

Yes

Ofcom should only publish this response after the consultation has ended:

You may publish my response on receipt

Question 1.1: What are the implications of market change for mobile and wireless services?:

A key point is to understand the migration from fixed to mobile and the possible implications that this may have. Parts of the document indicate that there is significant migration from fixed to mobile but we wonder if this interpretation is valid. The document indicates that the number of BT connections is certainly decreasing and some of these connections are migrating to wireless connectivity though there is a proportion migrating to other fixed line service providers with little real change in the

number of connections for the traditional MNOs. Thus there is a need to better understand this fixed to mobile migration process and confirm that it is a real trend. If the trend is more limited then this could have significant implications.

With the entry into the market of companies such as The Cloud, UK Broadband and Freedom4 it appears that that there will two distinct types of wireless connectivity providers and the implications of this need to be considered. One type is the traditional MNO and the other is the newer wireless broadband access providers. The interconnectivity and interoperability between the different types of operators will need to be considered. Additionally the existence of the two groups will have other implications though the MNOs will be evolving towards wireless broadband access provision though this may be under a different regulatory regime.

The volume of data traffic appears to be increasing significantly so the implications of voice taking a secondary role for the MNOs need to be considered. We note that this might be appropriately considered in section 7 where the scenarios are addressed.

Both mobile services and the Internet are continuing to evolve so this means that further change can be expected. At this stage it is not clear how changes will affect the market so any policy and regulatory framework will need to be flexible to accommodate these possible changes.

Question 1.2: How are citizens and consumers affected by developments in the mobile sector?:

For the consumer the market is becoming more complex making it difficult to make the correct choice. There is also an increasing range of privacy, identity and content standard issues to take into account where previously these have had a more limited impact on the consumer.
For the citizen there is an increasing amount of public services that can be accessed using mobile communications so there is a need to ensure that the citizens are not disadvantaged by these developments. This is an important topic as these citizens may not be aware of the privacy identity and content issues. This mobile access may be particularly important for the elderly and disabled who have special requirements.

Question 1.3: What are the purposes of mobile regulation, and where should its focus lie?:

There will be an increasing blurring of the boundary between mobile and fixed and the mobile sector will become ever more complex. The role of mobile regulation in this changing environment will be to ensure that the interests of citizens and consumers are taken into account and protected. It may be difficult to define the interests of citizens and consumers but this definition is essential. Some of this protection will be achieved by market forces and regulation should only be applied where market forces have failed. However due to the complexity of the mobile market it may be difficult to identify when market forces have failed. A particularly difficult area will be content regulation where the regulatory requirements will need to be fully understood to ensure that there are no unintended consequences. It may be appropriate to consider this question in conjunction with the following question.

Question 1.4: What is the scope for deregulation, competition and innovation in the mobile sector?:

This is a difficult question to answer as these factors will be evolving over time and the rate of this change is uncertain. There are a number of operators and service providers involved so that generally the market appears competitive with little need for further regulation to encourage additional competition. Indeed this competition may permit some regulation to be rolled back. However there are some specific areas where it appears that competition is not working effectively such as the high cost of international roaming rates so that regulation might be required to address these topics. The market is evolving quickly with various innovative new services and offerings being made available so it is important to ensure that innovation are not stifled by inappropriate regulation. It is expected that the rate of innovation could increase in future.

Question 3.1: What do you think are the features of a well-functioning mobile market? What evidence do you see that those features are present in the UK market?:

A well functioning market is characterized by active competition at all stages in the value chain together with the availability of a wide range of products and services. Currently there is ample evidence of a number of entities involved at most stages in the value chain indicating a well functioning market. There is also evidence of consumers moving from one service provider to another in order to obtain a better package or improved services.

Question 3.2: What measures are most appropriate to assess whether the mobile sector is performing well for citizens and consumers?:

A key aspect is good network coverage provided by at least two operators and this coverage should be approaching 100% based on a composite of geographical area and population.
There is frequently a fixed term contract involved in the provision of mobile communications and the length of this contract should be appropriate without any onerous conditions. However it is difficult to define an appropriate length for the contract.
We consider that no operator should have a dominant market share though equally some variation in market share should be expected. Currently there is little variation in market share of the four established operators and we wonder if this is a sign of some form of market failure.
We consider that for consumers there should be an extensive range of services and applications available with appropriate charges and conditions. For the citizen there should be adequate means for them to address the public services they require.

Question 3.3: How will market dynamics change as a result of trends such as availability of new spectrum, mobile broadband and new ways of delivering voice services?:

The availability of new spectrum could change the market dynamics in a number of ways. It could allow in new operators for providing services to the consumers. Another possibility is that it could reduce the bottlenecks in the backhaul network or encourage the migration from fixed to wireless backhaul. Additionally it could encourage new operators into the provision of back haul. These developments would all have a significant impact on the market and increase the competition.

Both mobile broadband and new means of delivering voice will encourage the development of new services and applications. This will generate additional demand which will place pressure on any bottle necks/constraints which may exist within the system so this could change market dynamics.

Question 4.1: What is your experience, as an individual consumer or an organisation that uses mobile services?:

Generally we have encountered few problems though on one occasion we felt that that we were mis-sold a contract plan. However the issue was easily resolved.

Question 4.2: How should regulators and policy-makers respond to signs of rising consumer concern? :

We are not convinced that additional direct regulation is required. We consider that increased consumer mobile communication literacy is required which should be based on an ongoing and extensive educational and advertising campaign. We consider that this education campaign could be funded by the network operators and/or service providers. We also consider that there should be improved codes of practice regarding the provision of pricing and billing information together with addressing other areas of concern. Additionally we consider that there should be some means of ensuring that consumers understand the importance of using service providers that implement the codes of practice and contribute to the literacy programme.

Question 4.3: What are the important factors to consider in striking a balance between protecting mobile consumers and enabling markets to work flexibly? Have we got this balance right in today?s mobile market?:

The consumer must have the knowledge and skills to make the correct choice in selecting the service provider and tariff package together with an effective industry scheme for controlling mis-practice. We are not convinced that currently the industry provides sufficient information for the consumer to make informed decisions.

For privacy and identity issues the consumer needs to have control over these issues and we are not convinced that currently this is achieved.

With the increasing amount of mobile content available via mobile devices there is a need for the consumer to fully understand that this is a different environment. Thus the charging regime and similar aspects associated with the provision of this content need to be considered. We are not convinced that the consumers understand these issues and there could be a need for greater protection.

Question 5.1: How does the use of mobile services affect our participation as citizens in society?:

We consider that mobile devices will become a key means for participating in society and these issues need exploring in detail to examine how this trend will evolve. Some specific areas where mobile access is likely to become important include
? Increased political involvement and this could involve younger people who traditionally have only had limited involvement
? Access to medical care and with the aging society this is likely to become increasingly important.
? Educational is becoming a life-long activity and increasingly this will be done online. Thus with the use of mobile devices learning can be carried out anywhere and at anytime.

Question 5.2: What factors should we take into account in thinking about access and inclusion issues in mobile markets?:

There appears to be a wide range of issues to be considered, some of which are technical and others are socio-economic. However before considering these issues we need to better understand the access and inclusion issues

The ownership of mobile phones appears to decrease significantly amongst the 65 and older age groups. The data currently available does not permit us to identify if this drop-off begins earlier as the next age group spans the years 55 ? 64. If the drop-off occurs about age 60 it could mean that the ownership proportion is including work provided phones as well as personal phones. If it is nearer 65 then other factors need to be considered, some issues could be manual dexterity required to use the phone, the cognitive skills required to use the phone or even the lack of a bank account required to support the contract

There is low ownership amongst the disabled with apparently little differences between the different types of impairment. It would be expected that there would be higher ownership amongst those with mobility difficulties. This seems to suggest that impaired mobility results in some problems for using mobile phones. Therefore there is a need to identify the causes of these difficulties and then endeavour to redesign the phone to remove the problem areas, this assumes it is a usability issue. The lack of ownership of mobile phones amongst those with hearing and visual impairments is more expected. Again there is a need to look at technical solutions such as converting sound to text for those with hearing difficulties and improving the screen display for those with visual impairments. Thus it appears that there is a need to identify a range of usability issues and find solutions to them.

There is low ownership of mobile phones in the lower socio economic groups where mobiles are an important means of connectivity and for many it is their only means of connection. Again this could be due to the lack of a bank account required to support the contract, a poor credit history meaning it is difficult to obtain a contract or it could mean that a mobile phone is too expensive.

Thus there is a range of factors to consider and more data is required to identify the key factors.

There may also be a need to consider if the phone manufacturers will make the phones more accessible and/or affordable in an effort to increase market share.

Question 5.3: What factors should we take into account in thinking about new services, and how those services may affect issues like protection of children, privacy and security?:

Privacy and security are key issues particularly for concepts such as the digital wallet or handbag and the SIMs everywhere scenario. There also needs to be a means of ensuring that if an unauthorized person obtains access to one service then this access cannot be used to access other services or personal details of the authorized person.

A key feature of these new services is likely to involve the provision of content in various forms. This raises many questions such as digital rights management and will the service be bundled or charged separately. This will be a difficult area to find appropriate solutions but it is considered essential that easy to understand solutions are found.

With improved mobile literacy will consumers become more aware of these issues and demand better protection regarding these areas of concern. Thus it is important that means of addressing these issues are identified.

Question 5.4: Have you been affected by issues about coverage or 'not spots?? How has it affected you?:

Yes and in various parts of the country. It prevents making important phone calls and carrying out other activities requiring connectivity. Interestingly we have found that these ?not spots? are frequently in areas where there are limited fixed line facilities for public use.

Question 7.1: What do you see as the most influential trends and features of mobile and wireless markets in future?:

The document seems to be based on use of mobile phones only and takes little account of WiFi access and the use of other forms of access devices. We consider that these other means of access will become increasingly important.
Linked to this mobile TV seems to have been considered as somehow separate from mobile communications and we consider that this is inappropriate. We consider that mobile TV could become an important component of the mobile scene, particularly as content will become a significant service/application and a more important market than voice.

A chart in the document indicates that there has been a significant increase in the market share devices supplied by RIM and Apple who is a new entrant with a market share larger than some established players so this indicates that the concept of access devices is changing. There is also the recent introduction of Google Android so the impact of this needs to be considered and will this concept take a significant market share. There also appears to be a trend for an increasing number of devices to be fitted with WiFi access which could be an important trend.

This consultation document indicates that for H3G data exceeded voice in October 07 and data is now significantly higher than voice. Another document indicates T-Mobile

data volume exceeded voice in April 2008 on its network. We consider that this is a significant change and could cause fundamental changes to the policy and regulatory framework. We also wonder if the other operators are experiencing this change.

This trend for data exceeding voice suggests that scenarios 3 and 4are the most appropriate predicting the future of mobile communications. However we wonder if scenario 4 is fully valid as some of these applications could be carried out by sensor networks and RFID. There is a need to consider if these types of devices could be considered as a form of mobile communications and we believe that further studies should be carried out to examine this aspect.

It appears that mobile communications will focus on a bottom-up approach rather than top-down so this will result in a less organized structure and not hierarchical as is the case for the fixed line system. We consider that this may have some impact on the scenarios and the policy and regulatory framework so it should be considered further.

Question 7.2: What new policy and regulatory challenges could the trends identified in this section bring? Which policy and regulatory challenges could they address?:

Current trends appear to favouring scenarios 3 and 4 and so consequentially it can be expected that the policy and regulatory framework will evolve towards supporting these scenarios. However another scenario might evolve so that the policy and regulatory framework needs to either flexible or very general in order to cope with unexpected developments.

With the transition from voice to data networks and the increasing importance of content it appears that a different type of policy and regulatory framework will be required. The evolution from the existing framework to the new framework could present some challenges. We consider that further research is required to understand this evolution.

Question 8.1: Should Ofcom do more to promote competition in mobile and wireless markets?:

Ofcom should develop a neutral regulatory framework so that competition develops as a result of market forces without active intervention by Ofcom. However there is a need to consider how this approach fits with the other developments and this may require some action by Ofcom.
Ofcom should also make sufficient spectrum available and ensure that spectrum trading can take place to ensure that all operators have access to sufficient and appropriate spectrum. This includes backhaul as well as the consumer links. There may also be a need to consider the most appropriate means of making this spectrum available as it appears that licence-exempt spectrum is capable of supporting more users than licensed spectrum though the nature of the service provided is different.

Question 8.2: Ofcom's strategy in telecommunications is to promote competition at the deepest level of infrastructure that is effective and sustainable. How might this strategy be applied, given future

developments in the mobile sector? Under what circumstances, if ever, would it make sense to consider access regulation for mobile platforms?:

We consider that competition at the deepest possible infrastructure level will remain a viable option. We also consider that with competition extending to this level it will give content providers appropriate access to the network and a means of delivering their content. If the market fails so that some content providers cannot obtain access to a network then Ofcom may need to consider open access provisions.

Question 8.3: What role can competition play in ensuring that future development of the mobile internet provides an open and flexible environment for a wide range of services? Should Ofcom explore open access requirements to ensure opportunities for innovation? What role might 'net neutrality? play in the mobile sector?:

It appears that the existing level of competition and the number of entities involved in the different stages of the value chain will encourage the further development of innovative services. Indeed to maintain a competitive edge we consider that service providers will have to develop innovative services in order to attract new consumers. We consider that Ofcom should only explore open access requirements when and if it becomes apparent that the market is blocking innovation. However we feel that Ofcom should be generally encouraging innovation though it is difficult to identify the appropriate mechanism.
Some fixed line operators are applying traffic shaping which seems to be the opposite of net neutrality. Therefore there is a need to consider the implications of these two different concepts on the process of fixed to mobile migration and convergence.

Question 8.4: What role might competition play in addressing questions about transparency of prices, services and contractual conditions offered to consumers of mobile and wireless services? What role should regulation play in addressing these questions?:

With the increased use of price comparison websites and similar concepts together with the need to retain subscribers it is expected that competition will become an increasingly powerful force in encouraging greater transparency of prices and conditions. It is considered that regulation should only be used where market forces are not appropriate or fail to address any specific issues. However with the exception of content issues we consider that there will be a declining role for regulation.

Question 8.5: What is the best way to promote content standards and ensure privacy protection for increasingly complex content and transaction services? How will privacy issues fare in a world where services are more personal and more complex?:

We consider that possible approaches include the following
? Increase consumer literacy in these areas
? voluntary codes of practice

? market forces ensuring that appropriate quality content is provided
? legislation

There is a need to consider if a new approach is needed for addressing privacy issues as a result of the changes that are taking place. The current privacy regulatory regime was developed for a very different world so it is considered that a new regime may be required to address the changing requirements.

Question 8.6: Will the mobile termination rate regime need to evolve or change more fundamentally? What is the best approach to adopt?:

With the different types of services and applications that are evolving there will be a need for change. It may be appropriate to have a range of different termination rate regimes each applicable to a specific service or application. Alternatively different concepts or combination of concepts may need to be applied to meet market requirements. This is an area where further work is required to determine the most appropriate approach.

Question 8.7: If competition does not reduce international roaming charges sufficiently, how should regulators respond, if at all?:

There is a need for the regulators to understand the reasons why competition will have failed in this case. If the high charges are a result of anti-competitive behaviour or similar action by the operators then regulatory action will be required. However if it is a result of the consumers? willingness to pay the high charges or a similar reason then it appears that increased mobile literacy is required rather than regulatory action. There might be other reasons for the roaming charges appearing to be excessive and if so this might require a different form of action.

Question 8.8: How might universal service and universal access need to adapt in a world where we increasingly rely on mobile services? What role might mobile play in universal access delivery in future?:

If there is a real trend of fixed to mobile migration then universal service and access will need to be based on wireless access rather than fixed line access. In this new environment we consider that USO will be concerned with the provision of access devices and ensuring universal coverage of wireless services. This will be particularly important for citizens accessing public services such as healthcare and education. If USO is concerned with the provision of access devices then there is a need to consider how should the provision of these devices be decided and what factors of disadvantage should be taken into account. Also there is a need to consider if the USO obligations should be restricted to MVOs or should it include other wireless service provides such as The Cloud, UK Broadband and Freedom4. If it is only applied to MVOs then this could distort the market. However if other service providers are included the obligation could distort the development of the market. This is an area where further research is required.

Question 8.9: Can markets and commercial agreements address issues such as ?not spots? and emergency access?If not, what role might be played by a regulator to address these issues?:

We consider that market forces and commercial agreements should be capable of addressing these issues. However we consider that there might need to be some encourage from the regulator to start the process though the regulator should only have a limited role. The type of solution we are suggesting is allowing subscribers to one network to roam onto the network of other operators in areas where there is poor or limited coverage. With some of the infrastructure sharing deals that have been announced recently we consider that steps are being taken towards moving in this direction. There is a need to consider if any form of encouragement to develop this trend is required.

Question 8.10: How might access for particular groups (such as the elderly and disabled users) need to evolve in future? What role can competition play in addressing these questions?:

From our response to question 5.2 it can be seen that there could be a wide range of factors involved in ensuring that the elderly and/or disabled have access. Some of the issues may require a technical solution which the manufacturers may implement as a result of market forces. However these market forces may need to be supported by additional regulation. There may be a need for new types of contract to enable these groups to obtain access to services and applications. The development of these new forms of contract will involve the service providers but could also include Ofcom and the financial sector.

It is important that these issues are addressed as the provision healthcare and access to government services over the Internet is increasing in importance. Thus it is important that access to the Internet is made easier for these categories of users. There may be a need to consider if this is best done via fixed or mobile access. If there is migration from fixed to mobile and the elderly and disabled continue to use fixed access then it is likely that the costs would increase with a reduced range of access equipment available so this aspect needs to be considered. Additionally the proportion of elderly and/or with no fixed line Internet access seems to be much higher than for those with no mobile phone. Thus there are some difficult issues to address and we consider that this is linked into the need for a new type of USO. This suggests that regulation will be more important than competition in addressing these issues.

Question 8.11: Do you have any comments regarding our proposed way forward and the objectives of the next phase of this Assessment?:

Generally we are in agreement with the proposals though this sector could evolve in unexpected directions so we believe that novel means of analysis should be considered to explore how the sector might evolve.

Additional comments: