

## Marconi's response to Ofcom's "New Voice Services" Consultation

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Marconi welcomes the opportunity to comment on Ofcom's "New Voice Services" consultation and offers the following general and detailed comments in response.

### Vision

Marconi's vision is of a vibrant knowledge-based economy supported by broadband communications infrastructure supporting a growing range of commercial, social and political activities and innovations.

As with previous generations of communications advances - canals, railways, phones, motorways - this will stimulate economic growth and deliver social and economic benefits in a wide range of diverse areas such as; efficiency gains for commerce and government, workforce mobility, transport relief, business model innovation, customer reach.

An essential enabler of a successful knowledge-based economy will be the development of the necessary infrastructure to support widely available, affordable access to broadband services, delivering adequate levels of availability, resilience and dependable quality of service.

It is inevitable that the new broadband infrastructure will be used to deliver many services, including voice, and that these "new voice services" will evolve into new forms, possibly quite different from the "POTS" voice service we have known in the past.

Whilst it is important to encourage such new developments, Marconi believes it would be a retrograde step if the end result were to be an erosion of the levels of reliability, availability and resilience which voice service networks have delivered to date.

### General principles

In general Marconi's response to the Ofcom "New Voice Services" consultation is informed by four firmly held positions:

- Marconi believes that a competitive telecoms market is good for the UK.
- Marconi supports the principle of the minimum of regulatory intervention, used only where sustainable competition has not been established, or for issues such as number allocation which are beyond the scope of the market. Where sustainable competition has not been established, regulation should be focused only on underlying bottlenecks in network infrastructure.
- Marconi believes that every effort must be taken to ensure that innovation is not stifled - the regulatory and market framework must be able to support the investment required to deliver the next generation telecoms infrastructure needed by a successful knowledge driven economy.
- Marconi believes that in the interests of national competitiveness, it is essential to ensure that the UK next generation telecommunications infrastructure is capable of delivering adequate levels of availability, resilience and dependable quality of service

**Key issue**

The key issue Marconi would wish to highlight in this response, is that of the quality of the national communications infrastructure. If the 'broadband vision' is to be realised, it will involve increasing levels of social, political and commercial activity being supported by next generation broadband infrastructure.

It is essential that this infrastructure should be able to offer adequate levels of availability, reliability and resilience, failure to ensure this will have significant implications for future national competitiveness.

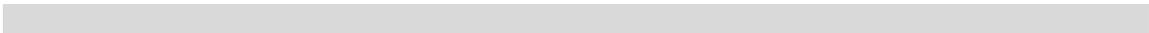
It is not clear that this requirement will be delivered without some co-ordination of, and agreement on, a minimum set of core reliability and resilience characteristics, particularly since in a multiple network environment, end to end quality is determined by the lowest common denominator.

Marconi understands Ofcom's wish to not burden embryonic 'new voice services' with regulatory requirements which could either radically slow their growth, or even stifle them.

Having said this, Marconi has an underlying concern that relaxation of requirements on network integrity could be the first steps on a path to a next generation infrastructure that does not have the currently enjoyed levels of reliability, availability and resilience.

This argument extends beyond the relatively narrow issue of voice services, to encompass the much wider range of next generation services that will be used to support significant levels of social, political and commercial activity.

The Marconi vision and general principles, laid out above, together with the key issue of infrastructure quality, form the basis of the following responses to Ofcom's specific questions.



**Question 1: What types of new voice services do you envisage becoming available in the future and what characteristics will they have that distinguish them from traditional voice services?**

Marconi is a provider of technology and capabilities that enable service innovation on the part of service providers, as such, Marconi does not have firm views on the specific nature of service innovations that will arise. However, the following general observations can be made:

- Voice over IP will lower the barriers to entry for new players, particularly at the service level, resulting in increased competition and innovation in terms of features and bundling.
- The entry of many new players is likely to lead to a significant fragmentation of the voice market with what has previously been seen as a ubiquitous, standardised product being replaced by many different mixes of functionality and bundling. This could result in consumers being unclear about the comparative characteristics of available services and their impact on availability, reliability and resilience.
- There is a possibility that voice over IP users come to rely on the safety net of the current circuit-switched Publicly Available Telephone Service (or its packet-based successor) for resilience and for access to emergency services, without otherwise using it. This would have the effect of rendering the safety net unviable as a commercial proposition.
- In the longer term, currently enjoyed levels of voice service availability, resilience and reliability could be lost, as a result of a lack of understanding or visibility of the particular mix of these attributes associated with a particular service offering.

In particular, it is likely that for users of broadband services, voice will increasingly come to be seen as an application rather than as a separately identifiable service. It is also likely that areas of innovation will include numbering/addressing with the advent of services that do not use "telephone numbers" and also in bundling and/or integration with other non-voice services – e.g. seamless integration of voice, video, personal web page, and messaging.

**Question 2: What are the main policy challenges raised by the introduction of new voice services for consumer protection and regulation?**

**Informed consumers**

It is important that consumers are in a position to make rational choices and Ofcom clearly recognises this throughout the consultation document. It is also important that consumers are able to interpret the implications of the available information, and here there is a question of how consumers will translate reliability data into rational decisions, particularly when part of that equation relates to the acceptability of a risk they will be unable to invoke emergency services – a situation most people hope will never arise.

In addition, the process of informing consumers about new voice services must take into account existing, strongly held expectations about the reliability, availability and resilience of traditional voice services.

**Quality of service**

Traditional voice services have evolved to the point where they offer remarkable levels of availability, resilience and dependable quality of service. As new services are introduced, based on new technology infrastructure, there is a risk that, over time, these currently enjoyed levels of reliability could be lost through a combination of cost reduction in network infrastructure, popularity of low cost services and lack of understanding or lack of perception of the implications of erosion of reliability.

To some extent, the levels of reliability provided by traditional networks and services are an implicit result of standardised terminals and common infrastructure technologies and architectures. As we move towards greater terminal and network infrastructure diversity, this 'implicit' mechanism will not be present and consideration of alternative mechanisms to ensure reliability may be required.

Although this issue relates to new voice services, it also has wider implications for all services which may be delivered over 'next generation' infrastructure. It is expected that increasing levels of social, political and economic activity will be supported by this infrastructure, and failure to ensure adequate levels of availability, resilience and dependability, could have profound implications for national competitiveness.

### **Externalities**

It is clear that widespread, reliable access to emergency services carries positive externalities. Also there are further positive externalities derived from the provision of reliable location information allowing a more efficient and effective deployment of emergency services.

### **Question 3: Do you agree with the initial top level aims identified by Ofcom?**

Marconi agrees with Ofcom's initial top level aims:

- To help create an environment in which new technologies can be developed successfully in the market, so that consumers can benefit from a wider and more innovative range of services.
- To ensure that consumers are properly informed and protected in relation to the products they are using.
- To limit the extent to which regulation creates distortion in the market.

See also comments on question 2.

### **Question 4: Are there other aims and criteria that Ofcom should consider?**

See comments on question 2.

### **Question 5: Are there other key policy questions that Ofcom should be considering?**

See comments on question 2.

### **Question 6: Do you agree with Ofcom's initial view that it is not necessary for all voice services to provide the same standard features as traditional telephone services, and that we should instead focus on enabling consumers to make informed decisions?**

Marconi believes it is neither necessary nor desirable that all voice services be required to provide the same standard features as traditional telephone services. It is however important that new voice services offered as substitutes for traditional voice services should interwork with existing traditional voice services.

It is essential that an effective consumer information policy be established to enable consumers to make informed decisions.

There are voice service characteristics relating to reliability and resilience which may not be immediately recognised by consumers as "features" and which may be difficult for consumers to interpret – see discussion related to question 2.

**Question 7: Do you agree with Ofcom's initial view that it is not desirable to draw a distinction between the regulation of services that look like traditional services and those that do not?**

Agreed, it is expected that there will be a wide continuum of services stretching between those that look very like traditional services and those that have very little resemblance to traditional services.

**Question 8: Do you agree with Ofcom's initial view that a distinction should not be drawn between the regulation of 'second line' services and 'primary' services.**

Agreed – it is difficult to see how such a distinction could be realistically sustained.

**Question 9: Do you think that a threshold should be set at which new voice services should be required to offer the same features as traditional voice services? If so, how should the threshold be set?**

Setting a threshold at which new voice services should be required to offer the same features as traditional voice services would seem to have the potential introduce market distortions.

**Question 10: Do you agree that most providers would want to offer at least a basic form of access to 999?**

It is not obvious that most providers would necessarily want to offer at least a basic form of access to 999, this would depend on the costs and obligations involved in providing such access and the market demands. For example it is not clear that the market would particularly value basic 999 access in a voice service which was primarily bundled with an on-line gaming service or promoted as a cheap or free second line service.

**Question 11: Do you agree with Ofcom's initial view that consumers sufficiently value having access to 999 in order for them to wish to retain at least one means of 'high quality' (very reliable) access to 999 at home?**

It would seem likely that consumers will wish to retain at least one means of 'high quality' (very reliable) access to 999 at home.

The issue here is one of consumer interpretation of the implications of service reliability, availability and resilience data.

**Question 12: Do you agree with Ofcom's initial view that not all voice services should be required to offer access to 999 but that decisions about subscribing to and using such services must be properly informed?**

Agreed.

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**Question 13: Do you agree with Ofcom's initial view that given some new services may not be able to offer the same degree of reliability for emergency calls as traditional voice services, it is better that these services are able to provide less reliable access to 999 rather than preventing them from offering access at all?**

Clearly some types of new voice services will be unable to offer the same degree of reliability for emergency calls as traditional voice services, particularly where the service depends in whole or part on a 'best efforts' infrastructure.

In general it would seem to be perverse to prevent such services from offering any emergency access, however, if services offering less reliable access were to 'drive out' more reliable services, there could be considerable external costs incurred.

Traditional voice services have evolved to the point where they offer remarkable levels of availability, resilience and dependable quality of service. As new services are introduced, based on new technology infrastructure, there is a risk that, over time, these currently enjoyed levels of reliability could be lost through a combination of cost reduction in network infrastructure, popularity of low cost services and lack of understanding or lack of perception of the implications of erosion of reliability. (See comments on question 2).

**Question 14: Do you agree with Ofcom's assessment of the costs and incentives for providers offering PATS?**

The analysis provided by Ofcom could be interpreted as showing an imbalance of costs and incentives for providers offering PATS, particularly in the context of new voice services.

The incentives of number portability and the ability to market new voice services as equivalent to traditional telephone services are likely to be relatively weak.

**Question 15: Do you agree with Ofcom's understanding of the implications of the definition of PATS contained in the Directives?**

Ofcom's analysis of the implications of the definition of PATS would seem to rely on a sustainable distinction between primary and second line services. It is not clear that it will be possible to maintain such a distinction in the market place.

**Question 16: Do you agree with Ofcom's understanding of the implications of this alternative approach?**

The 'alternative approach' whilst understandable as a measure to encourage innovation in new services, could potentially have implications for the reliability and resilience of network infrastructure and services. See comments on the key issue of infrastructure quality in the preamble to this response.

**Question 17: Are there policy initiatives in other areas related to new voice services that Ofcom should be considering?**

See the discussion on the key issue of infrastructure quality in the preamble to this response.

**Question 18: Although Ofcom is not consulting on its interim position, it would welcome your views on its interim policy to forbear from enforcing PATS obligations against new voice services which offer access to 999.**

As an interim policy aimed at not stifling new services, this position is understandable. However, the position needs to be linked with careful monitoring of market response, and must be linked to the provision of adequate consumer information.

**Question 19: Is it reasonable to have different network integrity requirements for nomadic services compared to services at a fixed location, and how should consumers be made aware of this difference?**

It is not clear that a distinction between fixed and nomadic services can be maintained. It is possible for a nomadic service to be used exclusively from a fixed location and equally possible for a fixed location service to have 'nomadic options'.

**Question 20: Do you think that it is better for Ofcom to:  
Retain the Essential Requirements Guidelines in their current form;  
Re-issue the Essential Requirements Guidelines, incorporating additional guidance in relation to Voice over Broadband and Next Generation Networks; or  
Withdraw the Essential Requirements Guidelines, and apply the 'reasonably practical' test set out in General Condition 3**

Based on the issues raised in the discussion on the key issue of infrastructure quality in the preamble to this response, it is preferable to re-issue the Essential Requirements Guidelines, incorporating additional guidance in relation to Voice over Broadband and Next Generation Networks.

**Question 21: Do you think that there are reasonably practical measures that providers at a fixed location can take even if they do not directly control the underlying network?**

It is always open to providers at a fixed location to attempt to negotiate appropriate SLAs with the underlying network operator. However there may be circumstances where this is not possible, for example where the underlying network is not capable of providing the requested level of network integrity.

**Question 22: What in practice should the roles of the network provider versus the service provider be for network integrity when the network provider has no control over the services offered over their network?**

The roles of the network provider versus service provider are essentially those of wholesaler versus retailer. The role of the service provider should be to ensure that services can be delivered to claimed levels of integrity by negotiating appropriate agreements with network providers.

**Question 23: Do you agree that it is likely to be reasonably practical for analogue telephone and ISDN2 services to provide line powering but not other services?**

It is technically practicable for most services to be line powered where there is a metallic loop involved. However it is noted that currently the market is moving away from expectations of line powering for new services such as ADSL.

The issue of the desirability or otherwise of line powering is best considered in separation from specific services.

**Question 24: What are your views on the technical feasibility of providing location information for nomadic services, both now and in the future?**

It is feasible to provide location information for current nomadic services. In the future, IP based nomadic services present a number of issues around the translation of IP addresses to user locations. There are currently no agreed solutions to this issue where services use non-public addresses or are terminated behind firewalls or within corporate VPNs.

**Question 25: What approach for emergency location would take account of current technical limitations, whilst ensuring that technical advances bring benefits to emergency organisations in the long run?**

In the light of the answer to question 24 above, it is suggested that there is a need for further investigation into potential solutions and the practical feasibility of such solutions.

**Question 26: Do you agree that consumer information is required where services look and feel like a traditional telephone service but not where services are clearly different (e.g. PC based services)?**

For the market in voice services to be efficient, it is essential that consumer information is available for all services.

**Question 27: Do you agree with a two stage approach to consumer information, first to ensure the purchaser is aware of the nature of the service at the point of purchase, and second to ensure all potential users are aware the service does not provide access to 999 at the point of use?**

Agreed.

**Question 28: If consumer information is required to ensure that consumer interests are protected, which of the above regulatory frameworks, if any, is appropriate to ensure it is successful?**

Appropriate and effective consumer information is required to ensure that consumer interests are protected and to enable rational consumer choices to be made.

It is not clear that a system of self regulation would necessarily act in the best interests of the consumer in all cases, co-regulation would seem to offer stronger protection of consumer interests.

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