



**Comments by Cisco Systems**  
**on**  
**Ofcom Consultation Document on Regulatory and Consumer Issues of New**  
**Voice Services**

**Introduction**

Cisco Systems (“Cisco”) welcomes the opportunity to provide its comments on Ofcom’s consultation document on the regulatory and consumer issues of new voice services.

Cisco is the worldwide leader in networking for the Internet. Today, networks are an essential part of business, education, healthcare, government and home communications, and Cisco’s Internet Protocol-based (IP) networking solutions are the foundation for many of these networks. Cisco hardware, software and service offerings are used to create Internet solutions that allow individuals, companies, public administrations and even countries and the European Union as a whole to increase productivity, improve customer satisfaction and strengthen competitive advantage.

Since the company launched the first multi-protocol router in 1984, Cisco has been one of the leaders in the development of IP-based networking technologies. This tradition of IP innovation continues with industry-leading products in the core areas of routing and switching, as well as advanced technologies in areas such as home networking, IP-enabled voice, optical, network security, storage networking and wireless LAN.

Already today, VoIP-enabled applications and services are capable of delivering much more than basic telephony; they are part of the new IP communications environment, with innovative features, providing real benefits in terms of productivity and convenience to businesses, administrations and consumers.

It is therefore important that Regulators, when approaching the question of the regulatory and consumer issues raised by new VoIP enabled applications and services which form part of the broader term “new voice services” used by Ofcom in its consultation, consider the impact

they may have on the successful deployment of these applications and services, which will foster growth and innovation.

Cisco welcomes Ofcom's consultation document and the proposals outlined on the way Ofcom intends to approach regulatory and consumer protection issues related to new voice services. We strongly support Ofcom's less interventionist approach, as well as flexible industry-led solutions. Furthermore, we applaud Ofcom's proposal to favour a *"light touch approach that relies on consumers to make informed choices and take advantage of a diversity of services, as opposed to preventing providers from offering certain voice services that do not meet specific regulatory requirements"*.

### **Section 3: New Voice Services**

**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?**

Cisco is firmly of the view that many VoIP-enabled capabilities that are already offered today are genuinely new, comprise innovative features, and can deliver much more than plain telephony, e.g. presence awareness, nomadic usage, collaborative working (e.g. voice + video + file sharing), interactive multiplayer gaming, etc. Many of these capabilities are not substitutable in both directions with traditional circuit-switched telephony and may be considered to represent emerging markets.

#### **Features and Applications of new VoIP-enabled services**

Both in the enterprise and residential market the following applications are already available:

- **Unified messaging:** the ability to access any mode of communication—such as telephone, fax, e-mail, voice mail, and instant messaging—from any device at any time.
- **Presence awareness:** capability allowing to detect if an end user is reachable via their choice of device or application type and to communicate instantaneously.

- **Nomadic usage:** when a VoIP service can be used away from a single geographic location and physical access line. In addition nomadic usage enables to use the service independent of a terminal.

- **Video conferencing:** (from and to IP network devices): systems that deliver voice, video, and data over a single network and that allow real-time person-to person video sessions to be added transparently to telephone calls.

- **Speech recognition:** with appropriate software, verbal commands can be analysed by a PC, which can then follow a set of commands.

- **Broadcast features:** provides memos, news, emergency alerts etc. to the screens of VoIP phones, and allowing interaction.

- **IP search functionality:** allows use of IP phone to check e-mail, voice mail, calendars, and contact-name information stored on the corporate network.

- **Voice-call distribution:** tools that will customize and automate voice distribution.

Cisco has also recently added new video telephony solutions and significant conferencing, security and system migration enhancements to its IP Communications portfolio. Cisco is using the flexibility of IP to provide broadcast-quality video and sound previously unavailable to most video conferencing systems.

In the future, the evolving needs of end users as well as the need to have a flexible communications network that can quickly adapt to organizational change will continue to drive the development of IP telephony and additional new features and capabilities.

#### **Section 4: Policy aims and regulatory framework**

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

We believe the most effective role of policy-makers is to build the framework for clear rules and regulations that facilitate growth and innovation in the market, and avoid placing unnecessary or burdensome regulations on new technologies. We also recognize the need for

regulators to provide consumer protection and ensure that regulations are in the best interest of public safety and community needs.

With regard to the imposition of regulatory requirements, and in particular with the types of social requirements Ofcom discusses in its consultation document, one of the key challenges is to balance the need to meet key public concerns (e.g. access to emergency services) without unnecessarily hampering nascent and innovative services that we believe will ultimately benefit these goals as well as consumers and the overall economy.

In line with Ofcom's thinking, we do not believe the right approach is to impose regulation designed for the PSTN to new voice services. Rather any necessary social regulation must be tailored to the reality of IP technology and networks. As Ofcom rightly recognizes, *"requiring, by regulation, new voice services to provide the same features as traditional services risks stifling new competitive services that benefit consumers"*. It is expected that the long-term VoIP solutions will improve from what is possible in today's circuit-switched environment, particularly in areas such as IP-enabled emergency services. Accordingly, it may be best to allow and encourage the private sector to implement solutions in order to best meet public policy requirements and consumers' needs efficiently. These efforts to find common solutions will take time and will be best developed by cooperation and not by mandate.

Moreover, even in the case of a VoIP-enabled or Voice over Broadband provider that chooses to offer VoIP services that qualify as PATS, we believe that compliance with PATS-related obligations should be handled pragmatically in the context of the capabilities of the technology, the cost of deployment and the proportionality of requirements. The technological realities of IP based networks and VoIP-enabled services merit a flexible regulatory approach that is not tied to the regulation of traditional circuit switched voice services.

Another challenge, which is part of this consultation, is how a regulator can best ensure that consumers are fully aware of any limitation with regard to key social requirements of new voice services that "look and feel" like traditional voice services. Effective consumer awareness is essential and this is irrespective of whether the VoIP-enabled service provider chooses to provide a new voice service as PATS or as an ECS.

The proposals advanced by Ofcom in Section 7 represent a good basis for discussion among industry and relevant stakeholders, including consumer organizations, to come up with self-

regulatory guidelines or a code of practice on the best solutions to address consumer awareness needs.

## **Policy Aims**

### **Question 3 and 4: Do you agree with the initial top level aims identified by Ofcom ?**

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

We do agree with the initial top level aims identified by Ofcom. In particular we support the principle of technology neutrality, which underlines the new regulatory framework and is referred to by Ofcom in Section 4.13. We agree that this is a sound and well justified principle, and as Ofcom puts it, “*regulation should not unduly favour one technology over another*”.

However, we believe the technology neutrality principle should be interpreted in a broad context considering the principle of promoting a wider and more innovative range of services from which users can choose, which is also one of the key roles of regulators.

Also, technologies *are* different in terms of their capacity to deliver applications and services, and in terms of the public policy that is necessary for allowing them to thrive. We are happy to see that Ofcom recognizes the differences in technologies by proposing an approach that would not automatically impose the same PSTN features on new voice services, while at the same time ensuring that consumers are properly informed of any possible limitation compared to traditional voice services. This will help create an environment in which new technologies and addition capabilities can be developed successfully in the market.

#### **What is the appropriate level of regulation of voice services?**

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

Cisco Systems believes that it is essential for Ofcom to fundamentally and explicitly distinguish, on the one hand, self-provision by end-users (which does not constitute the provision of an electronic communications service, and hence is not subject to regulation under the legal and regulatory framework), and on the other hand, provision of services

incorporating, amongst-others, the conveyance of voice by service providers, noting that service provision is understood to be against remuneration, which is consistent with Article 2 of the EU Framework Directive 2002/21/EC. This is, in Cisco's view, a fundamental distinction that must be made, and should be clearly communicated by Ofcom to all interested parties in order to avoid unnecessary confusion on the part of industry participants and end-users.

Also, we understand and support Ofcom's focus on protecting individual consumers, but we would point out that there are other categories of end-users, for instance large corporations and public administrations, that have sufficient in-house expertise and capabilities to self-supply certain elements of their communications needs, and that are more than able to protect their interests through direct negotiations with service suppliers. The EU regulatory framework, and the UK's transposition, actually makes a clear distinction between consumers and other end-users, e.g. in terms of the level of contractual obligations. In Cisco's view, it would be counterproductive to impose stringent regulation affecting categories of end-users that are able to secure the best solutions and deals by themselves, including in areas where they are able to dispense from purchasing certain service elements that are offered to the typical end-user.

With regard to the impact of VoIP on universal service or future universal service arrangements, which is also a key policy question, Ofcom itself indicates that it will deal with these issues separately in Ofcom's forthcoming Universal Service Review and in the Telecoms Review. However, it might be useful if Ofcom confirms in the context of this consultation the possibility of operators subject to universal service obligations to comply with their universal service obligations by using new voice over IP services and consider the challenges, if any, that this may pose.

The European Commission itself has already mentioned in its 14 June 2004 paper that undertakings with universal service obligations may use whatever technology is appropriate to meet their universal service obligations provided that they comply with the quality requirements set out in the Universal Service Directive (e.g. permit functional internet access) and national legislation, and that this could include use of VoIP technology.

Finally, there are some VoIP applications that do not intend to serve as a conduit to emergency services and where an emergency service capability would be difficult to

implement even if voice is part of the application. We hope that Ofcom will recognize this in the Statement that will follow this consultation (See also our response to Question 10).

**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?**

As already discussed in our response to Question 2, we do not believe that all new voice services should be required to offer the exact same standard features as traditional voice telephony. Rather, providers should be able to offer a range of voice services with different benefits and features and enable customers to make informed decisions. This is also the model underlying the EU framework, whereby a service provider has the commercial freedom to offer services that qualify him as a provider of an electronic communications service, or offer services that qualify him as PATS, and rights and obligations will be different. The main driver should be the choice of the operator. Some consumers may value the choice of replicating all of the traditional features of voice telephony while others may only value some of them. Leaving the choice in the hands of consumers will increase consumer welfare by offering them greater variety of services. This is especially important since VoIP can enable an even greater range of non-traditional features as discussed above.

Cisco therefore agrees with Ofcom's initial views that not all voice services should be required to offer the same features as traditional voice services, as this would inhibit the possibility of a wider range of voice services, whilst consumers should be able to make an informed choice.

**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?**

Yes, Cisco agrees with the arguments put forward by Ofcom to reject the "look and feel" criteria for deciding the appropriate level of regulation.

As Ofcom highlights, this approach is unlikely to be "future proof" and it would not be practical to implement. In addition, there may be VoIP-enabled applications (especially in

large organizations) that have the potential to look like traditional services, but that are or will be self provided and should therefore fall outside the scope of any regulation in accordance with the EU regulatory framework for electronic communications. The “look and feel” approach will also fail to recognize the difference between self provided systems and provision of electronic communications 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?**

Yes, Cisco believes this distinction is largely impractical and difficult to implement and will also not be future proof.

**Question 9: Should there be a threshold at which new voice services should be required to offer the same features as traditional voice services?**

No. Similarly, Cisco believes any such criteria will be difficult to determine and to implement. Furthermore, IP-based technology has the potential to provide innovative features that are superior to those offered by traditional voice networks. Requiring legacy features could, therefore, limit innovation and thus additional capabilities for users.

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

Cisco understands that Ofcom is keen to promote and encourage the availability of access to 999 services for all consumers. In fact, Cisco, as a leading provider of VoIP technology and devices, has already delivered technical VoIP solutions to customers which are operational today and offer access to emergency services.

We do believe that most providers have commercial incentives and market pressure to provide a high standard of VoIP-enabled services and a high level of user/consumer protection. This is particularly true with regard to access to emergency services.

However, we should also keep in mind that VoIP is a technology that is and will be used in the context of applications that do not intend to serve as a conduit to emergency services and where an emergency service capability would be difficult to implement, e.g. VoIP over IM, click-to-talk on an e-Commerce website, collaborative gaming etc.

We understand that these applications will in any case fall outside the scope of Ofcom's current consultation, which focuses on new voice services, including those using Voice over IP (VoIP) technology, but it may be useful for Ofcom to clarify this point as requested in our response to Question 5.

**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?**

We believe that ensuring that every consumer has at least one means of reliable access to 999 at home is an important policy and industry goal, but we agree with Ofcom that the best way to implement this goal is not through imposing a requirement to provide reliable access to 999 to all new voice services. In any event, Ofcom should keep the emergency access issue under review as the markets develops and discuss with industry ways to ensure that in the future there will be no degradation in the quality and availability of 999 at home. We believe there will be continued innovations here and opportunities to review best practices and benchmarking in the UK and other parts of the world.

**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?**

Yes, we broadly support Ofcom's approach. We strongly agree that it is important that providers of VoIP-enabled services provide clear information about how they deal with access to emergency services. Proper information for end users is essential, combined with an evolutionary and market led development of realistic solutions.

**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 any access at all ?**

Yes, we agree that where service providers cannot offer the same level of reliable services to 999 as traditional services, it would be better to offer some access rather than being prevented from offering any access at all. If ultimately the policy goal is to ensure a wider availability of

access to emergency services from all voice service providers, which is a goal we subscribe to, we believe that this approach is more reasonable than mandating an “all or nothing” approach.

In this respect, Cisco would like to emphasize that, from a technology point of view, IP based networks are inherently just as reliable as PSTN networks, and VoIP based solutions already exist today to provide access to emergency services with the same reliability as fixed traditional voice services. It is true, however, that depending on the type of VoIP implementation and access network the levels of quality may indeed vary. The lack of reliability is less a question of technology capabilities than of network engineering and design.

The biggest challenge however for emergency services is not network reliability but the nomadic nature of some VoIP-enabled services and therefore the accurate location identification

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

Cisco’s views are that the differentiation in terms of regulatory obligations, between the categories of “publicly available electronic communications service” and “publicly available telephone service” is fairly limited in the EU directives. Differentiation becomes stronger if a link is made at Member State level with rights and obligations relating to numbering, but this link does not exist in the EU directives.

In the UK, we agree that the only incentive for a PATS provider to become PATS would be entitlement to number portability. In other countries, the allocation of numbering resources is also linked to the PATS category, creating a strong incentive for operators to become PATS, but this is not the case in the UK.

Fundamentally, Cisco believes that Article 30 of EU Directive 2002/22/EC should not be interpreted so restrictively, such that Member States may only entitle subscribers of PATS to benefit from number portability, to the exclusion of subscribers to other services, and that it would be preferable if the European Commission would allow the Directive to be interpreted in the sense that –as a minimum– the subscribers of PATS must be enabled to benefit from number portability, without excluding the possibility of a wider application at national level

of this right of subscribers (and, where appropriate, the corresponding obligation of the service provider).

More generally, we believe that the practical differentiation between PATS and non-PATS ECS will evolve quickly and become a non-issue. The market will likely deliver the features that consumers require, and therefore it may very well be the case that most providers will, de-facto (i.e. voluntarily), in order to best serve their customers, provide all the key elements that are currently comprised in the PATS definition, and in particular number portability.

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

On the issue of categorisation, Cisco would endorse calls for engaging in a reflection exercise, perhaps at European level, on the possible evolution of definitions, including the definitions of "publicly available telephone service" (PATS), the definition of "network termination point", and the definition of "geographic number", and notes that it might be worth considering whether the PATS definition is necessary at all.

If we take the definitions of the current European Framework as a given, we would agree with a flexible interpretation of PATS in line with the European Commission's thinking reflected in the Information and Consultation Document of 14 June 2004. While providers of VoIP enabled services may decide to provide *publicly available telephone services* taking on the rights and obligations associated with this, we believe the Regulator should modulate the requirements of PATS imposed on these providers in light of the current state of the technology. This would entail a flexible approach in particular on network integrity and emergency location issues.

Finally, if the provider chooses to offer some sort of access or even reliable access to emergency services, this should not automatically trigger the PATS status, as this approach may disincentivise the provision of access to emergency services.

**Section 5: Interim PATS policy**

**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**

We believe that indeed, the provision of some form of access or even reliable access to emergency services should not automatically trigger the PATS status, as this approach may disincentivise the provision of access to emergency services. We support the broader goal of ensuring wider access to emergency services as the overriding policy goal. Please also see our response to Question 16.

## **Section 6: Network integrity and emergency location**

**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?**

In particular, with regard to General Condition 3, which implements Article 23 of the USD on integrity and availability at fixed locations, Cisco would like to refer to the Commission's proposal stated in section 5.1.1. of its 14 June 2004 paper in the sense that Member States should *"consider applying this article in such a way as to recognize that only those service providers that have control over or ownership of the underlying transport infrastructure are able to ensure the availability of publicly available telephone services in cases of force majeure."*

Cisco agrees with this proposal, and notes that network integrity can even be enhanced by the introduction of VoIP technologies. Indeed by implementing IP related techniques such as fast convergence, fast re-routing, an operator can indeed increase the reliability of their network infrastructure.

With regard to the possibility that some VoIP-enabled services can be used in a nomadic way, i.e., so that they are accessed through broadband access networks over which the VoIP service provider could not have any, even indirect, control, we agree with the Commission's proposal made in its 14 June 2004 paper that in such cases the network integrity requirements would not apply as it would no longer be a service "at a fixed location".

With regard to the possibility that some VoIP-enabled offerings, even if contractually agreed at a fixed location, can be used in a nomadic way, so that the user can connect to the service

from another location, Cisco agrees with Ofcom that the network integrity requirements would not be relevant in these other locations. We also agree that information regarding the potential limitations of the reliability or integrity of the network when the service is used in a “nomadic” way should be provided in the customer contract.

**Question 20: Do you think it is better for Ofcom to:**

- 1. Retain the Essential Requirements Guidelines in their current form;**
- 2. Re-issue the Essential Requirements Guidelines, incorporating additional guidance in relation to Voice over Broadband and Next Generation Networks;**
- 3. Withdraw the Essential Requirements Guidelines, and apply the “reasonable practical” test set out in General Condition 3.**

In principle, we believe that the second option will provide a higher degree of transparency and regulatory certainty as to how Ofcom expects to interpret General Condition 3.

However, as highlighted by Ofcom in Annex 10, given the early stages of deployment and planning of Voice over Broadband and Next Generation Networks, new Essential Requirements Guidelines could soon become obsolete. There is also a risk that any specific guidelines may be too prescriptive, “freezing” the ability of network operators and service providers to exploit advances in technology.

We therefore agree with Ofcom’s initial view that for the time being the best approach would be to withdraw the Essential Requirements Guidelines and apply the “reasonable practical” test set out in General Condition 3 on a case-by-case basis. This approach does not prevent Ofcom from re-issuing new Essential Requirements Guidelines at a later stage, once the market for new voice services is more developed.

In any event, we believe that it would be necessary for Ofcom to confirm in its forthcoming Statement the proposals advanced in this consultation document with regard to the different network integrity requirements for nomadic services and to endorse the Commission’s proposals in this respect, which we referred to in our response to Question 19 above.

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

Cisco Systems believes that it is in all network operators' and service providers' interests to offer a high level of quality of service, and that IP networks have achieved a reliability that can exceed that of traditional PSTN networks.

It should be kept in mind that the network integrity requirement of Article 23 of the Universal Service directive 2002/22/EC is not an absolute requirement to keep the network operational at all times, or to respect a particularly stringent SLA, but is rather a requirement to have a clearly established plan to put into action in the event of catastrophic failures or cases of force majeure. In Cisco's view, any responsible network operator and service provider will in any case have such a plan, and there is no need to apply additional regulatory obligations.

On the issue of negotiation of specific SLAs on quality/reliability with the network provider, Cisco believes that it would be unproductive to mandate this through regulation, because it is likely to be a source of conflicts between network operators and service providers, and could unnecessarily delay the launch of innovative services.

**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?**

Cisco agrees with Ofcom's proposals that, given the characteristics of the technology, it would not be reasonably practical to impose line powering requirements to new voice over IP services.

'In-line powering' of terminals is a historic PSTN feature, which has not been extended to newer systems, such as PABXs installed on customer premises (representing a large proportion of the total installed base of traditional PSTN lines), DECT and other cordless phones used on business premises and in homes, and GSM/3G terminals, cable TV networks providing telecommunications services, etc. The same treatment should be given to VoIP terminals.

While various terminal equipments are powered by batteries, or have batteries as a fall-back, Cisco Systems would oppose any regulation that would mandate that all terminal equipment have backup battery power or would require network operators or service providers to ensure the availability of battery power, as this would unnecessarily increase the price of the

equipment and increase service provider/operator costs (capital expenditure and operational expenditure) and ultimately consumer costs.

Also, the requirement for 'in-line powering' for 'lifeline' purposes is less acute today than it has been in the past, given that a very large proportion of individuals in the UK carries a mobile phone, which will typically have charged batteries, and which could be used as an alternative means of reaching emergency services in case of a power loss of fixed lines.

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

In our opinion, clear distinctions need to be made between:

- 1) Access to emergency services – for services provided at a fixed location.
- 2) Provision of location information – for services provided at a fixed location.
- 3) Access to emergency services – for nomadic applications/services.
- 4) Provision of location information – for nomadic applications/services.

Cisco Systems has delivered access to emergency services for services provided at a fixed location to a number of Service Providers through the use of Cisco soft switches. These systems route calls to the appropriate (geographically decentralised) emergency service centres, and provide them with the appropriate location information.

As regards nomadic applications and services, Cisco Systems has delivered systems for large enterprises and public administrations, covering specifically the scenario in which an individual moves from one building to another building belonging to the same organisation. These systems provide access to emergency services, as well as location information to the emergency services. Such systems are highly structured, require a strictly controlled environment, and are highly complex. It is difficult to envisage equivalents for services targeted at individual consumers. These users can potentially access nomadic VoIP-enabled services from many different broadband and wireless access networks which have not been designed to provide location information.

A standard specification on network provisioning of location information for nomadic services applicable for a large scope of residential access methods will take time although industry is working towards developing the right solutions. In this respect, it should be noted

that the Internet Engineering Task Force (IETF) takes great interest in presence awareness/management, to enhance user friendliness, to enable the development of new applications, but also in the context of improving emergency service access/location information. Cisco Systems is an active participant in the relevant working groups of the IETF<sup>1</sup>, and we urge Ofcom to take an interest in this work. More generally, we are of the opinion that the issues surrounding nomadic use should be addressed, pragmatically (cf. example of mobile networks), in mutual co-operation between the emergency services organisations and the industry.

Cisco welcomes Ofcom's proposal of a glide-path, whereby as an interim measure, a 'best effort' approach is favoured, whereby "*all providers are encouraged to develop the technology and processes that will enable them to support the wider provision of location information, for example by enabling users to update their contact address details whenever they move location or through more sophisticated measures to automatically identify the users location*". This is already happening with some VoIP-enabled service providers today.

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

Cisco believes that the definition and adoption of international standards which detect the location of nomadic users, and provides the location information to emergency services will take time. Generating automatic location information in the context of nomadic VoIP enabled services is a complex matter, although industry is working on potential solutions. For instance, a solution being considered, for some of the nomadic scenarios, is the usage of DHCP (protocol used to allocate an IP address to the end user at the time when he/she connects to the network) as a mechanism to identify the location.

Also in the context of the work done in the IETF, it may be worth noting that a new working group focusing on provision of 911/112/999 services will most likely be created.<sup>2</sup> We would

---

<sup>1</sup> For details of relevant IETF work in which Cisco participates, see for example:  
<http://www.ietf.org/internet-drafts/draft-ietf-sipping-location-requirements-01.txt>  
<http://www.ietf.org/internet-drafts/draft-ietf-geopriv-policy-02.txt>

<sup>2</sup> On November 12, the IETF held a Birds of Feather (BoF) session [used to instigate new working groups] titled: "Emergency Context Resolution with Internet Technologies (ECRIT)". Although there has been no IETF-announcement yet, the result of this meeting appears to be (if IESG consent follows) the creation of a new IETF WG focusing on provision of 911/112/999 services.

encourage Ofcom to take an interest in the work of IETF and to provide input to this group once it is created as one way to accomplish their objectives.

In the meantime, until common solutions are adopted, Cisco recommends to take a "best effort approach" which would rely on the capabilities of the end user to provide his/her location if he/she wishes to do so.

In any case in order to ensure that technical advances bring benefits to the emergency organisation and more important are in-line with these organisation requirements, Cisco recommends creating a discussion platform between all relevant parties in particular including emergency organisations and the industry to discuss how VoIP solutions, and IP network infrastructures, can evolve to meet emergency service requirements.

## **Section 7: Protecting consumers**

**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)?**

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

We believe that service providers should provide consumers information that clearly indicates what they will receive and what they will not receive with the service provided; consumer transparency is crucial.

We also believe that Ofcom should distinguish between different categories of end users when deciding the appropriate level of consumer information, as for businesses and public administrations the information requirements and the implementation mechanisms will be different than for the general public.

Ofcom has also suggested labelling of handsets where access to 999 is not available or less reliable as a solution to ensure consumer awareness. Cisco Systems is opposed to labelling terminal equipment. We believe this approach would create the impression that the terminal equipment is 'responsible' for determining whether a service provider offers emergency service capabilities or not.

All of Cisco Systems' network and terminal equipment is able to support access to emergency services, insofar as the network operator/service provider has made the proper technical arrangements, for instance by making use of the solutions developed by Cisco. Consequently, if emergency services cannot be accessed, this is due to a choice of the network operator or service provider.

Users must be informed if access to emergency services is not possible, but it should also be made clear that this is the responsibility of the network operator or service provider. Cisco is in favour of requiring all providers of voice services to provide clear information to their customers on how they deal with emergency services and caller location, in marketing materials and in contracts, in accordance with Article 20 of Directive 2002/22/EC.

In summary, given that Cisco Systems provides network and terminal equipment (which is able to support access to emergency services) to a variety of network operators, service providers and end-users, which have varying regulatory obligations, and often a choice with regard to the handling of emergency calls, it is not acceptable that Cisco's equipment would be generically labelled.

Cisco would be happy to work with industry and all relevant stakeholders to agree on the best solutions to allow consumers to make informed choices.

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

In our view, Ofcom should first consider the feasibility of a self-regulatory solution for ensuring consumer awareness before favouring a co-regulatory approach. Industry and all relevant stakeholders, including consumers groups, should be in a position to agree and adhere to self-regulatory guidelines. In fact, in an issue sufficiently sensitive like this one self-regulation could even be superior to any interventionist approach. Only if self-regulation does

not appear feasible, and after consultation with industry and relevant stakeholders, should Ofcom consider pursuing a co-regulatory approach.

We do not believe a formal regulatory approach as described in option 3 is the best approach as industry and consumer groups are best placed to decide what the most effective measures to achieve adequate consumer awareness are.

## **Conclusion**

In summary, Cisco Systems fundamentally agrees with the views and proposals made by Ofcom in this consultation document, which favours a light touch approach that relies on consumer awareness as opposed to a more interventionist approach based on the imposition of top-down regulatory requirements to all new voice services.

We would like to re-emphasize the following points of our response:

1. We believe that it is essential for Ofcom to explicitly distinguish between self provision by end users (which is not subject to regulation under the legal and regulatory framework) and provision of services incorporating, amongst-others, the conveyance of voice by service providers, and clarify that the scope of the proposals made in this consultation document only refer to new voice services that fall under the definition of “electronic communications services”.
2. We also believe that Ofcom needs to distinguish between categories of end users when considering the appropriate requirements to provide consumer information, recognising that in particular, large corporation and public administrations may require less stringent requirements as they are able to protect their interests through direct negotiations with service suppliers.
3. Public policy concerns relating to access to emergency service and location of information are important but industry-led pragmatic solutions are to be preferred over top-down imposition of regulatory requirements. We therefore agree with Ofcom’s proposals to adopt an interim measure whereby a best effort approach is favoured for the provision of location information for nomadic services. Firm obligations can be imposed, if necessary, once common solutions have been adopted by industry.

4. Finally, we encourage Ofcom to consider the feasibility of a self regulatory solution for ensuring consumer awareness between industry and all relevant stakeholders, including consumer groups.

Should you require any further clarification or further information on the positions set out in this response, please contact:

Pastora Valero  
Senior Policy Counsel  
EMEA Government Affairs

Tel: + 32 (0) 2 704 53 44

Fax: + 32 (0) 2 704 58 04

Gsm: + 32 (0)478 68 14 70

[pvalero@cisco.com](mailto:pvalero@cisco.com)