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**Skype Response to TRAI's consultation paper on "Review of Internet Services",
December 2006**

Dear Mr. Gupta,

Introduction

Skype is grateful to TRAI for the opportunity to comment on the above mentioned consultation paper. We restrict our comments to those aspects and issues of particular relevance to our business; most notably, sections 2.16 and 3.5 and our comments/suggestions on questions 4, 6 and 12. We also offer some comments on international regulatory practice, which we hope will be of interest to TRAI.

We would be pleased to elaborate on any part of this letter in writing or in person.

1. NRAs' treatment of VoIP

TRAI's research into other NRAs' regulatory treatment of VoIP is to be applauded. Skype would like to offer the following observations on best (and worst) practice internationally, based on our own experiences.

1. Among the most developed countries (as far as communication regulation is concerned) there is a general trend towards a three-tier regulatory regime for VoIP products and services (VoIP can be a product or a service. It can also be neither, for example, when it is a self-provided solution using a peer-to-peer software).
2. In the first tier fall non-infrastructure based software, which users use to create their own discrete peer-to-peer networks exclusively over the public Internet. No regulation is applied to this tier.
3. In the third tier fall services which are meant as a fixed location, full-replacement for a user's PSTN telephone service. The full panoply of PSTN regulation applies as the functionality is identical and the intention of the companies concerned is for users to replace their existing PSTN service.
4. These first and third tiers are reasonably uncontested and uncontroversial. More contentious is the second tier, into which all other VoIP products and services are usually put. At the risk of over simplification, these products/services fall into two broad categories: 1. IM-based VoIP clients which have no interconnect possibility with the PSTN, but do operate some

- kind of centralised server which routes calls over the public Internet between users.
2. Non-replacement VoIP products and services. For example, one-way PSTN-interconnected services, which are generally an add-on functionality to an IM-based software client. These services either allow a user to call out to the PSTN from his PC, or to receive calls from the PSTN on his PC. Such services may be offered by a single company, but are offered separately. Usage patterns attest to the fact that users do not perceive such services as anything more than optional additional functionality to the underlying IM software. Second tier products and services attract lower, or no, regulation. The first category in the second tier (IM clients with centralised servers) is primarily of interest to the 27 EU Member States¹, as the EU's current e-communications regulatory framework itself has a two-tiered approach (the heavily regulated Publicly Available Telephone Service – PATS - and the very lightly regulated electronic communications service – ECS). The ECS definition relies largely on the “transmission” or “conveyance” of electronic signals. Peer-to-peer software and related products fall outside this category.
 5. The FCC in the United States has arrived at a broadly similar practical result using different methodology. There are effectively two tiers of VoIP: replacement telephony service (two-way interconnected VoIP) and software-based, which is deemed not telephony at all, but rather an “information service”. Australia and Singapore have arrived at similar conclusions. While there are differences, usually based on local cultural, political or telecoms legacy issues, the outcomes are remarkably similar. Those NRAs have recognised the importance of distinguishing between different categories of VoIP for regulatory purposes. In fact, the EU has gone a step further in attempting to create a technology neutral approach, better able (it is hoped) to deal with new products and services in the future. The parallel desires of enhancing competition through lowering barriers to entry to new entrants who provide new and innovative communications solutions, and the need to protect consumers are well catered for by such a framework.
 6. Evidence suggests that a light touch regulatory framework for non-replacement communications products and services leads also to greater economic benefits accruing more widely as all sectors of the economy reap productivity rewards from lower costs and new, more efficient forms of communication (eg video calling, IM chatting, conference calling, nomadicity). Even traditional telecoms companies benefit through the accelerated uptake of broadband subscriptions as the content, services and applications at the “top” layer become compelling to consumers and businesses. “Lost” revenues are more than replaced by new – Internet-related - revenue streams.
 7. Similarly, for governments, any loss in fiscal revenue is more than compensated for by revenues generated by overall economic gains, taxes on

¹ Not only the 27 EU Member States (Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Romania, Slovakia, Spain, Sweden, United Kingdom), but also the EEA Member States (Iceland, Liechtenstein, Norway) must comply with the EU regulatory framework

new broadband and e-commerce services, efficiency savings by “e-enabling” government departments and so on.

8. Countries which have so far either not adapted their regulatory framework or have decided to protect their incumbent telecoms companies for the sake of short-term economic and/or political gain have suffered slower broadband take up, less innovation in start-ups and at SME level, and have seen potential domestic and foreign investment in communications, Internet and software development go elsewhere.

2. TRAI’s consultation paper

Turning to the issues addressed in the TRAI consultation paper, Skype has identified five issues we believe TRAI particularly wishes to hear about from us.

1. grey market in India (2.16, Q3, Q4)
2. loss of government revenues (2.16.10)
3. licence fees / level playing field (Q6, Q12)
4. lack of consumer accountability (2.16.9)
5. consumer awareness (2.16.11)

Skype’s comments on the above issues are as under:

Grey market in India:

When a user buys Internet access and a certain amount of bandwidth from his ISP, it is up to him what he does with that access and bandwidth. The Internet is by definition a global, public space. It should not be relevant in regulatory terms whether the bandwidth is used for downloading content, uploading blog entries, online gaming, email or voice communications. Internet-based voice communication, particularly that which is self-provided by the user, has no relevance to, or connection with, the world of telecommunications. In the case of India, it is the attempt to (mis)apply telecoms regulations onto Internet-based voice communications which creates the so-called “grey market”.

There are, no doubt, companies and individuals who mis-use the functionality of the Internet in order to create illegal scams, duping/defrauding the consumer or, even when offering a legitimate service, failing the consumer in customer service or marketing accuracy terms. Such problems can be tackled by enforcing existing regulations more effectively.

The inclusion of Skype as a “grey market foreign company” is not correct. Skype has no operations in India. Skype provides no equipment. Skype has no network.

TRAI’s paper’s sub-sections 2.16.6-2.16.14 outline TRAI’s perspective on the current situation. We will address each sub-section in turn:

2.16.6. As already mentioned, Skype is not a service, but a software application allowing users to self-provide their own peer-to-peer communications networks for free over the Internet.

2.16.7. TRAI's observations in this paragraph are correct.

2.16.8. SkypeIn allows a Skype user to purchase (the use of) an E.164 number to use for a period of either 3 or 12 months. SkypeIn is available for 14 countries (not India). Most of the NRAs of those 14 countries impose some form of restriction on who may use a number in their national numbering plan. In such cases, the restrictions are clearly indicated to potential SkypeIn users prior to any transaction taking place. So, for example, an Indian consumer cannot purchase (the right to use) a German or French number unless he is also resident in those countries. With our local carrier partners in those countries, a verifiable address look-up is necessary for the purchase to proceed. The number purchased must correspond to the user's supplied address. Two NRAs which expressly allow numbers from their plans to be sold and used nomadically and overseas are the FCC (USA) and OFCOM (UK). The attractiveness of having such a number and not being resident is clear, for businesses and individuals alike. The FCC and OFCOM are to be applauded for their foresight.

In the case of Skype, there is no security issue associated with the purchase of such numbers by Indian residents. Skype has in place in Luxembourg an efficient Law Enforcement Relationship Management (LERM) team, whose task it is to receive and process lawful requests for user or call data from foreign law enforcement and security agencies.

2.16.9. In the case of Skype, whose user base now exceeds 136 million worldwide, we take the satisfaction of our users very seriously indeed. Unhappy Skype users are dealt with efficiently by our multi-lingual customer service team in Luxembourg. Details of how to contact Skype are clearly given on our website. Depending on the issue, a user may address his concern to the customer service, abuse or security teams. As mentioned in the opening paragraphs, Skype is governed by, and fully complies with, Luxembourg law, which has very high levels of consumer protection and privacy protection.

2.16.10. Skype is not providing nor is associated in any manner with any "illegal internet telephony services" in India or elsewhere in the world. It is true that traditional telecoms revenue streams to government coffers are being affected by changes in technology, but we do not agree that government income is suffering. Far from reducing revenues to the Indian government, Skype is probably an indirect generator of revenue. Skype is driving broadband take up and use of Internet applications and services, all of which provide revenue to the government. Revenues from sales taxes on sales of 3rd party peripherals such as headsets, handsets and so on are also generated. The value accruing to the Indian economy through the widespread use of Skype and other applications by

businesses and individuals alike should not be underestimated. The move to Internet-based applications is a general trend; it is not (tele)communications specific. Countries which embrace the trend are benefiting enormously in economic and social terms.

2.16.11. Education can be seen as a kind of soft, consensual enforcement. Skype agrees that the provision of educational material to consumers is a sensible step for TRAI to take. The material should not only highlight the illegal nature of certain unscrupulous applications and services, but should also highlight the opportunities and value legal local and “foreign” Internet communications applications and services provide to citizens and businesses alike.

2.16.12. Skype is opposed to any form of content or application censorship on the public Internet (aside from those that are criminal in nature). The public Internet cannot be segmented into national mini-Internets. It is by its nature global. Internet blocking is, generally speaking, not practised by any democratic country. Indeed, most countries actively campaign in intergovernmental fora against such anti-democratic action. The only countries in the world we are aware of (from media reports) which may be attempting to block Skype are North Korea and Myanmar (both, presumably, for political reasons) and the United Arab Emirates (UAE). UAE appears to be doing so to protect the historical revenues of its telecoms incumbent, Etisalat. In our view, such action is not sustainable as it is not in the long-term interest of UAE’s people or economic development.

2.16.13. It is not clear to us why any licence should be required to allow access to specific types of Internet content or applications. Why is Internet voice communication singled out in this way? Skype’s suggestion would be to remove any licensing requirements from ISPs on what their users access over their networks. If an ISP chooses to provide a full, replacement telephone service in competition with the traditional PSTN network, then the ISP should indeed be obliged to obtain such a licence. That is how to “level the playing field”. It is not sustainable to raise regulatory barriers to new, innovative services and applications simply because the incumbent telecoms provider finds it hard to compete, or because a traditional government revenue stream is slowly drying up (which, is in any case being replaced by new revenue streams, such as from taxes on new Internet services, hardware sales and broadband access).

2.16.14. Regarding the “level playing field”, it is suggested that full, replacement telephony services that provide interconnection with the PSTN on a two-way basis be regulated in the same way as regular PSTN services. We do not believe there is any practical or philosophical merit in attempting to burden non-replacement Internet voice communications with telecoms regulation.

Re. Question 4: *“How to curb grey market activity without depriving users to avail such services?”*

1. level the playing field as far as replacement telephony services are concerned, by making them subject to existing PSTN-based service requirements;
2. explicitly allow Internet-based applications to operate in the Indian market (notions of “domestic” and “foreign” are misplaced in the Internet context);
3. formulate and, in consultation with industry and consumer groups, release a basic code of conduct for such Internet-based applications providers, which contains minimum standards of consumer protection, user privacy protection, company contact information, law enforcement relationship management function;
4. crack down on local companies failing to adhere to the minimum standards in the code or those replacement telephony service providers failing to abide by the full regulations. Make consumers aware of the foreign companies not meeting local best practice;
5. formulate and release an informational booklet (online and offline) informing users of the different types of voice communication available and the pros and cons of each (e.g. Pros: PSTN-replacement service excellent reliability, IM-based application excellent functionality and nomadicity. Cons: PSTN-replacement service non-nomadic. IM-based application no emergency service calling).

Re. Question 6. *“The Emerging technological trends have been discussed in Chapter 3. Please suggest changes you feel necessary in ISP licenses to keep pace with emerging technical trends?”*

1. As we mentioned above when discussing 2.16.13, it is not clear to us why any licence should be required to allow access to specific types of Internet content or applications. There should be no restriction placed on what a user can access over the Internet, nor should there be any restriction on what an ISP can offer its users. In return, for the user, an explicit regulatory obligation should be placed on ISPs and network operators not to restrict what content, services and applications its users can access (so called “network neutrality” principle). These two actions would ensure that ISPs are able to offer their own voice services, if so desired, and users are able to choose which voice products or services (including self-providing applications). In developed countries, the former is commonplace and the latter is either taken for granted (e.g. in the EU regulatory framework) or subject to issued guidelines (the FCC’s “four Internet freedoms”).

It could be considered to go further and remove all licensing requirements from ISPs, merely subjecting them to notification and minimum regulatory requirements, including consumer protection, quality of service information, complaints procedure, network neutrality obligations, and so on. TRAI’s role would be to ensure compliance with the regulations; ISPs which did not notify would be closed down. Those which did notify but did not comply would be subject to sanctions deemed appropriate by TRAI. A light touch framework

would bring the benefits to the market and to consumers, as TRAI desires. It has been seen to work in other countries (the UK is a good example).

2. In 3.5.3 TRAI correctly notes that Skype-Skype calls are encrypted. This is to ensure communications between Skype users cannot be illegally eavesdropped upon. There are numerous ways for users to communicate via encrypted channels (e.g. VPNs, PGP, SSL etc). Skype is not unique in this regard. Skype is happy to discuss this topic in more depth with TRAI.

Re. Question 12: *“The consultation paper has discussed some strategic paths to boost Internet telephony, bring in level playing field vis a vis other operators, and regulate the Internet services. Do you agree with the approach? Please give your suggestion regarding future direction keeping in view the changing scenario.”*

We do not believe the consultation paper’s suggestions are sufficiently radical to have the desired effect (i.e. promote competition among ISPs and in the voice communication market, stimulate demand for broadband uptake, deter illegal operators, and replace lost government revenues).

As we have already stated, Skype believes the following actions will create vibrant Internet access and voice communications markets, offering good value and choice to consumers, and increased competition among providers.

1. Remove all rigid – application specific - licensing requirements from ISPs;
2. consider removing all licensing requirements, replacing them with a light-touch regulatory regime based on ISP notification and TRAI compliance oversight;
3. acknowledge the public Internet is a global arena and allow “domestic” and “foreign” applications and products to compete openly. Develop and enforce a code of practice to ensure an adequate level of consumer protection;
4. develop and distribute an educational brochure for consumers describing objectively the pros and cons of all voice offerings;
5. replace “lost” government revenues through indirect revenue streams from greater uptake of broadband services and therefore greater expenditure on access, hardware, content and software applications. Recognise the boost to the economy (and increased government revenues) through the productivity and efficiency gains greater Internet usage brings.

Conclusion

Skype appreciates the opportunity to comment on the policy and regulatory issues surrounding the evolution of online communications in India and elsewhere. We look forward to discussing the issues with you further in due course.

Yours sincerely,

Skype Communications Sarl, Luxembourg