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Re: VON Coalition Submission on the TRAI Consultation Paper on Internet Telephony

Dear Mr. Kumar:

The Voice on the Net Coalition (“VON”)<sup>1</sup> submits these comments in response to the Telecom Regulatory Authority of India’s (“TRAI”) Consultation Paper on Internet Telephony. As stated in the Consultation Paper, the goal of this proceeding is to “encourage Internet telephony services in the country.”<sup>2</sup> To meet this goal, VON urges the TRAI to consider the framework developed by the US Federal Communications Commission (“FCC”), which uses a “light touch” regulatory approach for Internet telephony services used as a substitute for traditional wireline telephone services<sup>3</sup> and does not regulate other types of Internet telephony services at all.<sup>4</sup> The FCC’s approach has contributed to growth and innovation in the US Internet telephony market, which has resulted in significant benefits for US consumers and businesses, encouraged migration to more efficient, modern, and feature-rich IP-based technologies, and stimulated demand for broadband service.

## DISCUSSION

Interconnected VoIP is flourishing in the United States. According to an FCC report released in August 2016, interconnected VoIP subscriptions grew in the U.S. at an annual rate of 13 percent between June 2012 and June 2015, from approximately 40 million subscriptions in 2012 to

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<sup>1</sup> VON is the leading advocacy organization for the Internet communications industry, working with legislators, regulators, and other policymakers to develop policies that support the availability and adoption of Internet communications products and services. VON’s members include a broad range of companies serving both residential and enterprise customers, including AT&T, Google, Microsoft and Vonage. For more information see [www.von.org](http://www.von.org).

<sup>2</sup> TRAI Consultation Paper on Internet Telephony (VOIP) § 4.1 (2016).

<sup>3</sup> The FCC refers to these services as Interconnected VoIP, which is defined as a service that: (1) Enables real-time, two-way voice communications; (2) Requires a broadband connection from the user's location; (3) Requires Internet protocol-compatible customer premises equipment (CPE); and (4) Permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network. 47 Code of Federal Regulations § 9.3.

<sup>4</sup> Examples include content and application providers offering Internet telephony services that do not interconnect with a telephone number or to the public telephone network; or services that permits calls to the public telephone network or from the public telephone network but not calls between telephones on the public telephone network.

nearly 57 million in 2015.<sup>5</sup> Such growth suggests that the regulatory framework has helped produce a competitive VoIP market, with no adverse consequences to consumers.

The FCC has recognized a strong interest in ensuring that regulation does not hinder the growth of the Internet and the services provided over it, including Internet telephony. Importantly, the FCC does not require that companies obtain a license prior to offering Internet telephony services. Companies are simply required to complete a registration form (known as a FCC Form 499-A) within 30 days of providing service.<sup>6</sup> There are no financial or other qualifications required. This allows even small companies with limited resources to enter the Internet telephony market.

The FCC has imposed a small number of regulations that are directly related to consumer protection and public safety on interconnected VoIP providers, including requirements to:

- Allow the porting of telephone numbers to and from other service providers
- Make the service accessible to law enforcement
- Contribute to the Federal Universal Service Fund<sup>7</sup>
- Contribute to the Telecommunications Relay Service Fund, which supports services that assist persons with a hearing or speech disability<sup>8</sup>
- Provide emergency calling services
- Protect customer proprietary network information
- Provide customers notice before discontinuing service

The FCC recognizes that substantial regulation is unnecessary in a market with robust competition, low barriers to entry and where consumers choose winners and losers. Encouraging competition also results in lower prices and innovative service offerings for both residential and business customers. As of June 2015, there were more than 900 companies providing Interconnected VoIP in the United States.<sup>9</sup>

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<sup>5</sup> *Voice Telephone Services: Status as of June 30, 2015*, FCC Wireline Competition Bureau at 2 (2016), available at [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2016/db0805/DOC-340665A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0805/DOC-340665A1.pdf). Of this total, there were 39 million residential subscriptions and 17.7 million business subscriptions. By comparison, mobile voice subscriptions increased at an annual rate of three percent per year, and retail switched access lines declined at 13 percent per year. The FCC only gathers data on interconnected VoIP, not other types of Internet telephony services.

<sup>6</sup> See [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-338151A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-338151A1.pdf).

<sup>7</sup> The Universal Service Fund subsidizes communications and broadband services to low-income households, rural healthcare providers, and eligible schools and libraries.

<sup>8</sup> The Telecommunications Relay Service is a telephone service that allows persons with hearing or speech disabilities to place and receive telephone calls.

<sup>9</sup> *Voice Telephone Services: Status as of June 30* at Table 2, page 10, available at [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2016/db0805/DOC-340665A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0805/DOC-340665A1.pdf).

Internet telephony subscribers are also broadband subscribers. Thus, a robust Internet telephony market would promote the availability, investment and adoption of broadband. This creates jobs, drives tax revenue and allows Indian businesses to better compete in the global economy.

## **RESPONSES TO CONSULTATION QUESTIONS**

**Q1: What should be the additional entry fee, Performance Bank Guarantee (PBG) and Financial Bank Guarantee (FBG) for Internet Service providers if they are also allowed to provide unrestricted Internet Telephony?**

There should not be any additional fees imposed on Internet Service Providers – or any other entity interested in providing VoIP -- who are allowed to provide unrestricted Internet Telephony. Internet services are already governed by existing laws and licenses. Any new licenses and fees would create unnecessary barriers to entry and constrain the availability of Internet Telephony.

**Q2: Point of Interconnection for Circuit switched Network for various types of calls is well defined. Should same be continued for Internet Telephony calls or is there a need to change Point of Interconnection for Internet Telephony calls?**

The TRAI should encourage the use of IP interconnection between network providers to reduce switching costs and for a more efficient delivery of calls. However, in the context of VoIP services themselves, the provider of the VoIP service often has no “network” of its own. Therefore, the concept of “POIs” is not necessarily directly applicable to Internet Telephony services so long as underlying IP networks are encouraged to interconnect.

**Q3: Whether accessing of telecom services of the TSP by the subscriber through public Internet (internet access of any other TSP) can be construed as extension of fixed line or mobile services of the TSP? Please provide full justification in support of your answer.**

Accessing Internet telephony through the public internet should not be construed as an extension of traditional telephony, such as fixed line or mobile services, because Internet Telephony is fundamentally different from these services. As noted in response to Q2, consumers, rather than the VoIP provider, control the public Internet connections used for VoIP capability.

**Q4: Whether present ceiling of transit charge needs to be reviewed or it can be continued at the same level? In case it is to be reviewed, please provide cost details and method to calculate transit charge.**

No response.

**Q5: What should be the termination charge when call is terminating into Internet telephony network?**

The termination charge for a PSTN-to-PSTN call that is terminated to an Internet Telephony user should be no different than any other call from the PSTN to a wireline PSTN user. Because Internet Telephony providers typically partner with wireline carriers to terminate calls that originate on the PSTN, the inbound call to the Internet Telephony user will terminate on the PSTN with the Internet Telephony provider's underlying PSTN partner. Thus, the partner should treat the termination of that call just as it would any other inbound call and apply the appropriate terminating rate. VON understands that India's current terminating rate for domestic calls terminated to wireline carriers is zero.

**Q6: What should be the termination charge for the calls originated from Internet Telephony Network and terminated into the wireline and wireless Network?**

See answer to Q5 above. The same approach applies for calls originated by an Internet Telephony caller. The call will originate on the PSTN as a wireline call – when the Internet Telephony provider's underlying partner originates and transmits the call to the called party's carrier on the PSTN. Therefore, whatever termination charge applies to a wireline-originated PSTN call should also apply to an Internet Telephony call that, after traversing the Internet, originates on a wireline PSTN network and terminates on a PSTN network (wireless or wireline).

**Q7: How to ensure that users of International Internet Telephony calls pay applicable International termination charges?**

International termination charges should not be assessed on users of International Internet Telephony. First, Internet Telephony calls typically are transited across international boundaries via the global internet (where the underlying network providers typically exchange such traffic via a bill-and-keep mechanism). It would be inappropriate to impose PSTN-based charges on calls that are not making use of PSTN networks globally. Instead, imposing international charges that otherwise would not apply, based on a particular use of the internet (voice applications), would unnecessarily introduce economic inefficiencies and would not be justified by actual costs. Second, imposing the traditionally high international tariffs on communications that are transmitted across the globe via the Internet would undercut the benefits VoIP has created for users all over the world. Thanks to the low cost of Internet Telephony calls from one country to another, consumers and businesses the world over are engaging in communications that were previously beyond their reach.

**Q8: Should an Internet telephony subscriber be able to initiate or receive calls from outside the SDCA, or service area, or the country through the public Internet thus providing limited or full mobility to such subscriber?**

Internet telephony subscribers should be allowed to initiate or receive calls from anywhere and using any protocol. Restricting initiation or reception to within Short Distance Charging Areas, service areas, or the country would apply to today's technology a regulatory limitation that is based on the physical limitations of yesterday's telecommunications systems – i.e., networks that formerly were distance-sensitive and bound by particular geographies. This is no longer the case with IP-based networks and services, and imposing geographic restrictions would unnecessarily increase costs and restrict how Internet telephony can be used by residential and business subscribers. Internet telephony services can be initiated by telephone, computer (using a softphone) or an application on a mobile phone. All of these should be permitted and innovation encouraged.

**Q9: Should the last mile for an Internet telephony subscriber be the public Internet irrespective of where the subscriber is currently located as long as the PSTN leg abides by all the interconnection rules and regulations concerning NLDO and ILDO?**

No response.

**Q10: What should be the framework for allocation of numbering resource for Internet Telephony services?**

Providers of interconnected VoIP should have direct access to telephone numbers. Moreover, they should not be forced to use numbers that are different from those in use by other voice providers today. Creating a “special” numbering range for Internet Telephony would place new entrants at a competitive disadvantage by forcing users to change their phone numbers – potentially to an unknown or unusual number range – in order to use the services of the new entrant Internet Telephony provider.

**Q11: Whether Number portability should be allowed for Internet Telephony numbers? If yes, what should be the framework?**

Number portability for internet telephony should not only be allowed, it should be required. Portability is critical as customers transition between Internet telephony and other telephony services. Customers who want to transition from traditional telephony to Internet Telephony will be reluctant to do so if they are unable to keep their telephone numbers. Portability also supports competition among Internet telephony providers because it allows customers to more easily switch between VoIP providers, or to mobile or wireline providers.

**Q12: Is it possible to provide location information to the police station when the subscriber is making Internet Telephony call to Emergency number? If yes, how?**

Providers of interconnected VoIP services can request that customers register the physical address where the service will be used. That address, along with the assigned telephone number,

can be provided during an emergency call. Users will have to be educated to provide updated address information if they move the IP phone or the VoIP service. Providers of Internet telephony services that generally are not a replacement for telephone services (e.g., services that are not interconnected to the public telephone network, mobile VoIP applications or those applications running through software on a laptop) should not be required to offer emergency calling at this time, because that capability is available more reliably through the consumer's telephone carrier. Instead, the issue is largely technical in nature and should be studied and considered in a separate proceeding.

**Q13: In case it is not possible to provide Emergency services through Internet Telephony, whether informing limitation of Internet Telephony calls in advance to the consumers will be sufficient?**

Consumers should be informed of limitations or that emergency services are currently not provided through certain Internet telephony services. Such notice is sufficient for consumers to make educated decisions about Internet telephony services.

**Q14: Is there a need to prescribe QoS parameters for Internet telephony at present? If yes, what parameter has to be prescribed? Please give your suggestions with justifications.**

No. Market forces should determine QoS parameters. Competition will compel providers to deliver high quality service or risk losing customers.

**Q15: Any other issue related to the matter of Consultation.**

Yes, as noted earlier, there should be no licensing requirements for providers of Internet telephony services.

**CONCLUSION**

VON urges the TRAI to act quickly and open the Internet telephony market to competition. Thank you for the opportunity to participate in this consultation. Please contact the undersigned should you have any questions.

Respectfully submitted,

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