

Comments of the Draft WGIG Issue Paper on VoIP

Note: The original text from the draft WGIG paper is in italic

Our added text is in Red color

Issue (What?)

VoIP is a relatively recent technology that allows for telephone calls to be packetized and sent over the Internet. Originally this was only done between users who had the correct software and who were willing to accept the best effort service. Later it was restricted to enterprise environments where the service was guaranteed by the use of proprietary networks. Eventually the enterprise networks were interconnected over private lines and virtual private lines (tunnels across the Internet). Recently operators and service providers have started to deploy VoIP in their public networks (sometimes referred to as IP Telephony).

Our comment is to replace the above paragraph with the following one:

VoIP is a relatively recent technology that allows for telephone calls to be packetized and sent over any IP-based network such as but not limited to the Internet. VoIP as a service can in fact be practiced in various environments such as enterprise networks where it is deemed as a private service offered to a limited number of users (enterprise employees) even though it requires interconnection with the public switched telephone network (PSTN). As a public service offering, operators and service providers do offer VoIP services on a national and international levels, where voice traffic can either be carried over dedicated IP links totally separated from the Internet, or via the public Internet and in this latter case VoIP would precisely mean voice over Internet. In this particular paper, VoIP and voice over Internet means exactly the same thing.

One of the bullets in this section says:

- *Today, voice revenues are still the "cash cow" of traditional network providers, and new subsidy mechanism adapted to the needs of competitive marketplaces (e.g. universal service funds) are still in place.*

Our question is:

The last phrase "are still in place" what does it refer to? Does it refer to the new subsidy mechanisms?

Another bullet says:

- *There is a need for technical standardization to ensure smooth interconnection between VoIP network and existing PSTN and between VoIP networks of different operators.*

Our comment is to replace the above bullet with the following and move it to the Weaknesses of the SWOT:

- **Although VoIP standards have been developed, the level of interoperability between various VoIP networking manufacturers is yet immature.**

Another bullet says:

- *VoIP, based on Internet technology, is possibly exposed to the danger of cyber attack such as distributed denial of services that are not generally present in*

the PSTN. VoIP may also be susceptible to SPAM, which while similar to unwanted calls on the PSTN, would require different control mechanisms.

Our comment is to move the above bullet as is to the Weaknesses of the SWOT.

2. Attribution to category / ies

Stable and secure functioning of the Internet

- *The introduction of latency into best effort VoIP data flows*

Our comment is that the above statement is either incomplete or vague and I'd rather take it off this section because even if best effort VoIP entails latency (though some operators debate that), this in my view is not relevant to the stability and security of the Internet. Latency would merely affect the service itself not the entire Internet.

3. SWOT Analysis

- *Many national regulation entities are looking at the issue in terms of technology neutrality, i.e. a voice call is the same whether it is over legacy telecommunications infrastructure or over the public Internet.*
- *Many business entities are arguing for no national or international regulation.*

Our comment is to move the above 2 bullets to the What Issue section.

Strengths:

- *From operators and service providers' perspective, converging voice, data and multimedia services over an IP unified infrastructure seems to have a lot of advantages as far as CAPEX and OPEX are concerned.*
- *From consumer point of view, VOIP is relatively an inexpensive service.*
- *From market point of view, VoIP services would introduce competition which eventually reflects on the consumer's benefit.*

Weaknesses:

- *VoIP, based on Internet technology, is possibly exposed to the danger of cyber attack such as distributed denial of services that are not generally present in the PSTN. VoIP may also be susceptible to SPAM, which while similar to unwanted calls on the PSTN, would require different control mechanisms.*
- *Although VoIP standards have been developed, the level of interoperability between various VoIP networking manufacturers is yet immature.*

Opportunities:

- *New business models with possibly innovative applications and revenues generated for operators.*

Threats:

- *There is the issue of potential revenue reduction for countries and/or monopoly operators and/or state-owned operators is of concern in many developing countries.*
- **Lack of technical human capacities in developing countries that are trained and ready to build, operate and maintain VoIP based infrastructures.**

4. Actors (who, with whom?)

- *ITU*
- *National regulator*
- **Operators and service providers**