IEG/COMMENTS/002-E

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ETSI TIPHON

**COMMENTS ON DRAFT REPORT OF THE
SECRETARY GENERAL ON IP TELEPHONY**

Comment 1
Whilst welcoming much of the useful information in the paper, more attention needs to be given to explaining the different scenarios where voice traffic may be carried on IP. This is important because any discussion of policy should identify clearly which of these scenarios is being considered. It is also unfortunate that "IP telephony" is being contrasted with the PSTN as IP may be used as a technology for the provision of the PSTN and many operators are currently considering migrating their PSTN platforms from circuit switched technology to IP.

IP is being used to carry voice as a public service in at least four scenarios:

A. Traditional and newer entrant "telcos" with direct connections to customers will migrate their existing PSTN services onto IP. This is the most heavily regulated part of telecommunications.

B. Newer entrant long distance and international operators with indirect connections to customers will use IP within their own networks whilst maintaining the same interconnections to local operators for collecting and delivering traffic.

C. New managed IP networks will be introduced offering a wide range of multi-media services including voice

D. Internet service providers will facilitate the use of the public Internet for voice and add interconnections to circuit switched networks for call delivery

These scenarios should be distinguished carefully as they involve quite different regulatory and policy issues.

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Comment 2

Figure 1 proposes a complex list of criteria for determining if a particular instance of IP telephony is functionally equivalent to PSTN voice services. The third through to the penultimate criteria seem inappropriate and not sufficiently stable. For example:

- Local calls are not charged in the US and Hong Kong
- Headsets can be used instead of handsets and are used in many call centres
- Delays may exceed 250 ms on some PSTN calls

The key issue is whether the service is the public telephony service and this is not a function of charging to the caller nor of technology as they are not fundamental elements of the service. The following is proposed as an alternative set of criteria:
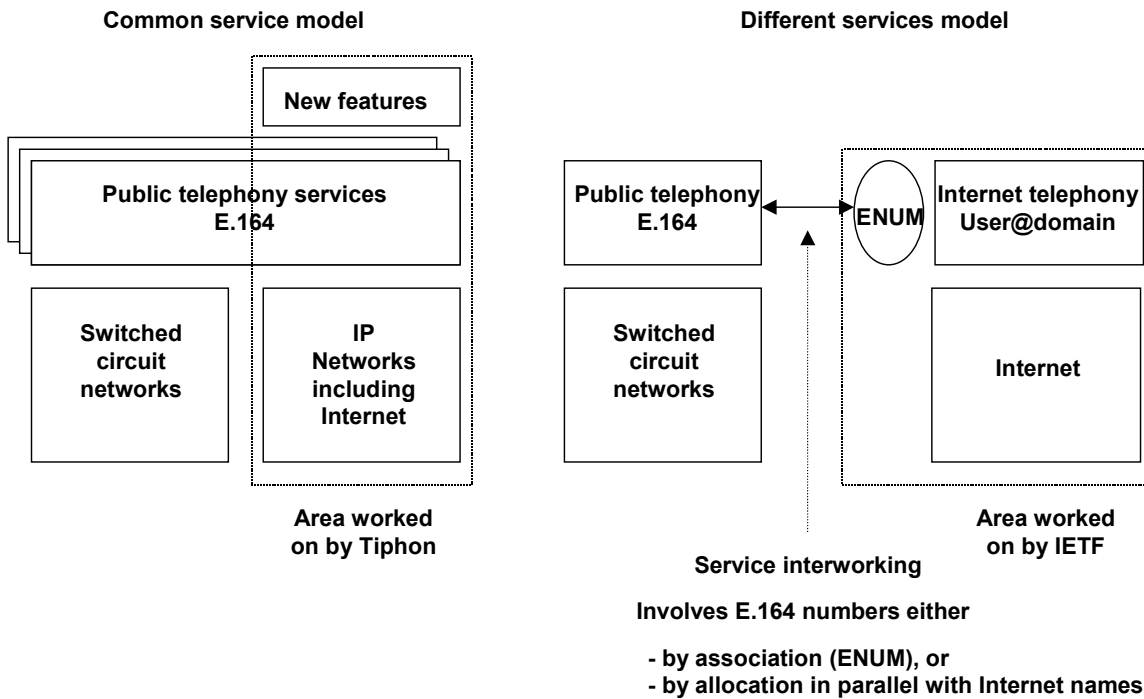
- Is the service available for use by the public?
- Is real-time[1] voice the dominant or only communication service?
- Is the called party identified by an E.164 number that is allocated to them for the purpose of receiving the service?

The use of the E.164 number is important because the way in which the caller identifies the called party is a central part of the service description and the allocation of numbers determines who can be reached. Any service that uses a different form of identification is a different service as is evident from the problems of for users of one service in communicating with users of the other service.

These criteria are in effect no more than a re-statement of the key words of "Public", "Switched" (ie the caller can select between many possible destinations using a defined identification system), and "Telephony". This attractive both because it is simple and because it does not add new (and thus potentially controversial) criteria.

The following diagram illustrates this point.

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[1] Or near real-time as nothing is instant

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Common service model

Different services model

New features	
Public telephony services E.164	**Public telephony E.164** — ENUM — **Internet telephony User@domain**
Switched circuit networks / **IP Networks including Internet**	**Switched circuit networks** / **Internet**
Area worked on by Tiphon	**Area worked on by IETF**

Service interworking

Involves E.164 numbers either

- by association (ENUM), or
- by allocation in parallel with Internet names

On the left is shown the use of IP to support essentially the same services that are supported on switched circuit networks, though with the possible addition of new features. This is the area where the ETSI TIPHON project is working.

On the right is shown the IETF's development of a different telephony service where the users are identified by Internet names of the form "user@domain". Interconnection with public telephony would require some service interworking function, which is one of the things that ENUM will provide.

The alternative criteria proposed are fewer and more objective than those proposed in Figure 1.

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