



**VoIP:
to regulate or not to regulate?**

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VoIP: to regulate or not to regulate main issues addressed in the GSR Discussion Paper “VoIP and Regulation”

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VoIP – basic regulatory questions

- In short/middle term (evolution from PSTN to IP networks)
 - Which VoIP services and to what extent are they comparable to traditional telephone services?
- In long term (IP network prevalent)
 - Does VoIP need revolution in regulatory thinking?
- Transition period
 - How long should PSTN be maintained?
 - When and how it is time to make changes in legislation in order to ensure legal certainty?

Regulatory classification of VoIP services

- Depends on national legislation
 - Will likely change with development of new services.
 - Today the following classification is widely applied
1. Outside of regulatory concern
 - Companies`internal use, operators`internal use
 - Internet telephony using self loaded program (for example original Skype)
 2. Inside of regulatory concern
 - VoIP services with gateway to PSTN
 - However interpretation is coming more complex, e.g. triple play, Skype In and Skype Out

Special characteristics of VoIP reflect to regulatory challenges

- Service provision and data transmission can be technically and commercially separated (in traditional telephone service the same operator offers both)
 - interconnection models, quality of service, etc.
- Nomadic nature of VoIP services
 - user can be connected in any (broad band) internet access point in any country and VoIP provider can be located in any country
 - emergency calls, numbering, security, etc.

VoIP regulatory challenges - market entry

Regulatory questions depend on market characteristics, e.g.

- How to ensure open, nondiscriminatory access by ISP to broadband internet access /network?
- Does the VoIP service have the same features and functions as PSTN telephony and will the same regulatory treatment apply?
- How to prevent on incumbent from stopping / blocking VoIP services?

VoIP regulatory challenges - emergency calls

- Main problem is uncertainty of location of the caller due to nomadic nature of VoIP
- Regulatory questions can be divided into two levels:
 - Calls inside a country
 - easier due to one legal framework and one structure of emergency centres
 - “Cross border” calls
 - more complex due to different emergency numbers, routing arrangements and legal requirements

VoIP regulatory challenges - numbering

- Today`s challenges
 - Geographic subscriber numbers or special number series for nomadic VoIP use?
 - Number portability between VoIP and PSTN phone numbers?
 - Arrangements for ENUM?
- Future aspects
 - Today E.164 numbering managed solely on national authority
 - In the future IP addresses /domain names controlled by different organisations and more on international level
 - what impacts will have?

Regulatory challenges - interconnection

PSTN – IP (short term question)

- Termination to PSTN likely no problem (termination fee same regardless of originating network)
- Termination to IP likely to arise debate (cost of network elements difficult to determine)

IP-IP (longer term question)

- Various problems to apply current I/C models in order to support large set of new services
- New I/C models needed, examples of debated approaches
 - NGN with controlled QoS, security and charging, etc.
 - Open arrangement: separation of services and connectivity like in the internet