

The Economic Impact of VoIP Regulation in Europe

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Emergency Services Workshop

Vienna, 22.10.2008

- Introduction and overview of the study “the regulation of VoIP”¹
- The different regulations for emergency services on Member State level
- Impact on VoIP operators and markets
- Conclusions and recommendations

- Substantial differences in the regulatory environment regarding VoIP services stated already in previous studies
 - European Commission (2004): The Treatment of VoIP under the Regulatory Framework
 - ERG (2005): ERG Common Statement for VoIP Regulatory Approaches
 - ERG (2007): Common Position on VoIP
- EU Commission's recommended changes to the regulatory framework
- A few years ago, actual market relevance of VoIP in Europe was much less than today
- However, today, VoIP has become mainstream
 - Conversion of networks to NGNs; IP has become the heart of the telecommunications network
 - Very different business models; third party service providers who may not even have a network have developed a firm foothold

- National regulatory obligations applied to VoIP services, degree of harmonization
 - Access to emergency services
 - Numbering arrangements and number portability
 - Notification and authorization requirements and classification of VoIP services
 - Interconnection
 - Lawful intercept and data retention
- Differences in national regulatory treatment of VoIP
 - Degree to which they impair competitive entry of service providers in the consumer and business segments
 - Impact on the broader economy
- Recommendations as to how any problems could be alleviated

Different regulations on Access to Emergency Services

	VoIP providers required to pro-vide access to emergency calls?	Transmission of CLI and caller location information to emergency services?	Information to subscribers about risks of VoIP service?
Austria	Yes (PATS)	CLI (yes for PATS), location information on request	No
Denmark	Yes (those who enable calls to the national numbering plan)	CLI (yes), location information if technically feasible	Yes
Estonia	Yes (PATS)	CLI (yes), location information where possible	No
France	Yes (PATS and ECS)	CLI implicit, location information if technologically possible	Yes
Germany	Yes (PATS), but not before Jan. 1 st 2009	Yes (PATS), but not before Jan. 1 st 2009	No
Italy	Yes (PATS and nomadic PATS)	CLI (Yes), location information to the extent technically feasible (ongoing infringement procedure)	Yes
The Netherlands	Yes (PATS)	CLI (Yes, if operator provides it); caller location information (ongoing infringement procedure)	No
Poland	No	No	Yes
Spain	Yes (ECS and PATS)	No (only if PATS)	Yes
UK	Since Sep. 8, 2008 all PECS	CLI (where technical feasible); Caller Location Information (since Sep. 8, 2008 all PECS)	Yes

Impact of different regulations for emergency services on VoIP service providers and markets

- Challenges for a carrier or a service provider in view of specific national characteristics
 - Number of different emergency call numbers
 - Large differences across Member States
 - Number of Public Safety Answering Points (PSAPs)
 - Most MS apply a regional organisation of PSAPs depending on the specific emergency call number
 - Routing of emergency calls to the “correct” PSAP: the traditional PSTN world
 - Crucial issue: “division of labour” between originating and terminating network

The position of market participants towards emergency services

- The position of market participants
 - Overall, most interviewees acknowledged the necessity of providing access to emergency calls. Only one interviewee raised concerns that obligations might be inappropriately extended to VoIP services that are not intended to be true substitutes for PATS;
 - However, access to emergency services is likely to be associated with substantial implementation costs; arguments:
 - Becoming familiar with the different regimes at the national level time-consuming and resource-intensive
 - Considerable investment outlays associated with the specific obligations already in place or envisaged by particular NRAs
 - Differences in Europe pose substantial challenges to a trans-national business model (VoI providers)
 - No possibility to realize learning curve effects in a world of regulatory environments that differ so greatly from one another
 - Some MS use emergency systems which are antiquated from a technological point of view; overdue for modernisation
 - Consequently, most VoI operators use (facilities-based) third-party wholesale provider, which help to facilitate competitive entry

Costs due to lack of harmonisation

The operator's perspective

- Costs to operators and service providers associated with different regulations
 - higher transaction costs in dealing with multiple Member State regulatory obligations,
 - loss of potential profits due to the inability to enter some Member States, or the inability to provide the offering that would be most profitable,
 - loss of potential economies of scale that would otherwise have been obtained.
- Costs relevant neither to regulation nor to the choice of circuit switched versus IP-based technology
 - E.g. costs of marketing and customer care in the languages of the customers that VoIP service providers serve
- Costs that any provider of electronic communications would incur in providing any service in multiple Member States, but that are largely independent of the choice of circuit switched versus IP-based technology
 - E.g., each provider must familiarise itself with procedures in each Member State, and establish necessary contacts with the NRA

Costs due to lack of harmonisation

The macroeconomic perspective

- Impact on prices
 - Less market entry by VoIP providers means less aggressive competition and therefore less pressure on prices in the communications sector
 - Price *structure*: (In the absence of other market entry barriers) Less market entry means less pressure on erasing cross-subsidization in the market, i.e. less pressure for prices to reflect marginal costs
 - Price *levels*: Less market entry could result in higher prices or less consumer choice.
 - To the extent that prices for voice communications services are higher than they could be, and to the extent that these prices reflect input costs in other sectors of the economy, output prices in other sectors of the economy might also be higher than they could be
- Impact on private consumption
 - Consumers forego the potential benefits of competition
 - Less choice; end users can not purchase services that otherwise would have been available to them
 - They may instead purchase services that are inferior in price or quality, or that lack useful features
 - Less incentive in the private household sector to buy new (future proof, i.e. IP based) terminal equipment

- We observed significant differences in the regulation of VoIP among EU Member States.
- Our interviews confirm that VoIP providers often choose to enter the market in only one or two Member States, and that regulatory differences are a significant factor in these decisions.
- We think that enhanced harmonisation would be appropriate at this time, inasmuch as the marketplace for VoIP is now sufficiently mature.
 - An appropriate and consistent regulatory environment for VoIP would tend to reduce costs and promote efficiency, and thus benefit all operators who aim to provide their services in multiple Member States or throughout the EU.
 - It would tend to result in greater choice and in services with better price/performance, thus, benefiting EU consumers.
 - As a result, a harmonised regulatory environment would tend to enhance European competitiveness in comparison to other areas of the world.

Recommendations regarding emergency services (I)

- The Commission should require Member States to ensure that any providers of a service available to the public for *originating national calls* through a number or numbers in a national telephone numbering plan provide access to emergency services.
- Such providers should also be required to make caller location information available to authorities handling emergencies, to the extent technically feasible.
- Such providers should be obliged to clearly inform subscribers about any limitations in the access to emergency services they offer, as compared to that offered by the traditional telephony service.
- To the extent that location determination depends on the subscriber's own actions, it is crucial that the subscriber be educated and informed as to the obligations that he or she must undertake to keep this location information current.
- Reasonable transition periods should be allowed

Recommendations regarding emergency services (II)

- The Commission (with the ongoing support of the European Regulators' Group (ERG) and the Expert Group on Emergency Access (EGEA)) should continue to monitor developments as regards technical standards and actual deployment in regard to VoIP access to emergency services. In particular, at such time as a deployment of enhanced Public Safety Access Points (PSAPs) is ripe (especially a migration of the PSAPs to IP), some level of European coordination will be necessary and appropriate.
- Scant attention has been paid to date to nomadic VoIP use from a Member State other than the one for which the service was intended, either with or without the permission of the VoIP service provider. Today, access to emergency services will not work in such an environment; however, in a future world operating under ECRIT standards, access to emergency services could in principle be supported.
- We see enhanced standards as important and valuable, but we do not think that they will provide a quick fix. First, there will be a long transition period; second, even in the best of all possible worlds, there will be instances where the location is still not reliably known.

Thank you for your Attention

The whole report can be downloaded from

http://ec.europa.eu/information_society/policy/ecommm/library/ext_studies/index_en.htm#2008

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