

Consultation ERG Future charging mechanisms.

Question 1

Different charging mechanisms are possible provided operators maintain toll-booths, otherwise known as 'telephone numbers' (originating and terminating telephone numbers). Current practice mimics the traditional PSTN on the internet, which is quite different from SIP telephony. SIP telephony is a service on the internet and there is no logic in additional charging by the minute at all as the internet connection is already paid for on both sides of the connection. SIP telephony does not use telephone numbers (directly), something users are quite fond of.

Provided operators are allowed to control the telephone numbers, they will mimic the traditional PSTN charging mechanism. Operators will prevent direct SIP connections between two telephone numbers, circumventing their toll booth. Remarkably, operators (are permitted to) act as though they own the telephone numbers they issue (they even sell attractive numbers they receive from NRAs).

Mandatory use of ENUM for each telephone number and issuing numbers to end users instead of operators might eventually render the choice between BaK and CPNP irrelevant. Wholesale use of ENUM would add only a few Euros a year (comparable to the cost of a domain name) for each telephone number.

Question 2

There is no such thing as interconnection between telephone networks when using SIP. Services can be located outside the operator's NGN, hence the NGN should be service agnostic (while adhering to all internet standards). There should be no charging at the service level, other than by service providers themselves (not necessarily the owner of the transport network). Charging for transport will inevitably follow internet rules, and termination charges do not exist on the internet. Charging of the telephone/SIP service is up to the service provider but not related to minutes.

Question 3

Are we returning to the old-fashioned SS7 telephone networks? It certainly appears so, as the paper discusses how many POIs may be required in a terminating operator's network.

That old-fashioned situation no longer exists however; in reality all voice traffic is already IP-based. Hence one POI per terminating operator is sufficient. There is currently more than one POI per operator due only to historical regulatory reasons.

For SIP telephony, or any other IP-based service, this question is clearly irrelevant.

Question 4

The lower penetration of mobile phones in the US is due to the fact that fixed networks in Europe have been and still are subsidizing mobile networks due to asymmetric termination rates. Any subsidized service will have a higher penetration rate than an unsubsidized one.

Lower (or zero) termination rates will increase the use of a telephone service, this is an obvious micro-economic conclusion.

Question 5

Agree with conclusion: BaK reduces regulatory costs and increases regulatory certainty.

Question 6

We expect an increase in SPIT calls if legislation with respect to automated calls in BaK countries is dissimilar. If automated calls are allowed in one BaK country, all other BaK countries will suffer.

However, we anticipate that all BaK countries will adopt these laws in the short term.

Question 7

We do not think BaK has a significant impact from call and network externalities. Even low usage mobile users will add to revenue. Even now there is a minimum charge per month for prepaid users because their balance often expires within a certain time span or the number is blocked when no outgoing calls are placed.

Question 8

Not applicable for BTG.

However, we anticipate strong opposition from operators to migrating to BaK, simply because they are always seeking to maintain the status quo.

Question 9

Termination rates do not have to be the same for everyone. Traffic to a BaK area originating from a non-BaK area should incur the usual termination rates even though the termination rate inside the BaK area is zero. The BaK area need not comprise adjacent countries. Symmetric termination rates must be assumed between BaK and non-BaK areas (and within BaK countries for that matter).

This mechanism will prevent subsidies, arbitration and call-back schemes.

Question 10

We do not consider glide paths to solve any problems, charging mechanisms become incredibly complicated (and hence operators will claim it is impossible). The same is true for different mechanisms for different operators in one country.

A well-planned migration per country on a particular date (big bang) seems the appropriate route because NRAs are organized per country. Two years' prior notice will be more than adequate, particularly because wholesale pricing is very simple compared to retail pricing.

Question 11

No other relevant issues.