Response to the European Regulators Group Consultation on "ERG Draft Common Position on Next Generation Networks Future Charging Mechanisms / Long Term Termination Issues" (ERG (09) 34)

Telenor welcomes the opportunity offered by the European Regulators Group (ERG) to share its views on alternative charging mechanisms for future NGN networks as discussed in the above mentioned consultation document.

The structure of the response is as follows: Major issues that Telenor opine should be better addressed in the final version of the document are commented in the first three sections. This is followed by a section where specific answers to the consultation questions are provided.

The main messages are highlighted below:

1. Telenor is objecting to the idea of regulatory imposed B&K for voice calls

- In competitive markets, prices reflect costs and capacity cost is strictly larger than zero. Thus, regulatory determined termination rates should always be above zero.

2. Risks of mandatory B&K are neglected

- Perceived negative effects on future incentives and capabilities to invest in network capacity following from such a giant regulatory experiment should be of concern also to ERG. In addition to giving the wrong message in a period where major private-sector investments are vital, a mandatory B&K regime would be plagued with arbitrage, adverse selection and free rider problems.
- Adverse effects on operator incentives to offer attractive price plans for the low volume / expenditure segment may result in certain segments paying more, not less, for their mobile services. This effect of B&K seems socially unfair and is not aligned with general social e-inclusion objectives. Telenor provides data to bear effect.
- Practical and operational issues following mandated B&K needs further analysis.

3. Unanimous implementation is a prerequisite but seems very unlikely

- Mandated B&K needs to a coordinated implementation in all EU member states. Uncoordinated, county-by-country imposition/adoption would imply a subsidy from the B&K country to the CPNP country.
- The legal basis to impose mandatory B&K under the EU regulatory framework and national legislation is not discussed at all.
- The ERG and the European Commission must align regulatory policy. The Commission recently recommended a cost based rate > 0, whereas the ERG suggests a mandatory rate at zero implying cost recovery by operators in retail markets.

Reference is made to the responses of industry associations ETNO and GSMA respectively, submissions supported by Telenor.

1. Telenor appreciates ERG's effort of exploring alternative interconnection regimes in the context of a NGN all-IP world, but the suggested recommendations must be better qualified

1.1 About the problem identification, situation analysis and proposed resolution

The main assumption of the draft Common Position is that once NGNs arise with a multi-service environment sharing a common transport layer, the current CPNP regime for voice interconnection mixed with different arrangements for other services will create arbitrage problems. Telenor agrees to the problem identification. Finding resolution by proper analysis of alternatives available is important. Telenor is less convinced about the situation analysis and whether the right policy recommendations are provided. The major considerations that should be better qualified are:

- What is the significant problem that needs to be resolved?
- What is the risk of imposing B&K through regulation?

In Telenor's view the migration to IP networks will eventually drive fundamental changes in the telecoms industry structure. The traditional industry structure organised by vertical networks will continue to migrate to access independent service provisioning. IP technology will give customers access to services and content independently and seamlessly across networks and devices. For different telecom operators, this means a significant broadening of their competitive landscape, including also competition from new types of online service providers. However, we note that multi-service (including voice) all-IP next generation networks (NGN) and convergence of services – the key assumption for this draft Common Position – will likely be more gradual than anticipated.

Technology and market scenarios should not be used as a regulatory lever to address mere theoretical problems. Telenor expects the market and the operators to be best positioned to efficiently address the arbitrage challenges. Regulatory authorities should make sure the market is not distorted.

It would also be important to note that mobile services in Europe are far more successful than, for example, in the USA, regarding the availability of services, penetration and ownership, popularity and role to play in assisting citizens with either poor living conditions or certain disabilities. We think these values must be kept together with the competitive advantage of European GSM operators, and we believe that one of the main reasons behind this overwhelming success in the last 10-17 years is the selected CPP model. If we study international trends, we can also observe that there were far more migrations from B&K to CPP than the other way around (we do not know of any).

Europe has a long tradition of cost oriented interconnection regulation. Most NRAs have LRAIC models in place. Furthermore, the European Commission has issued a Recommendation on the regulatory treatment of fixed and mobile termination rates (FTRs and MTRs) in the EU. NRAs should ensure that termination rates are implemented at a cost-efficient, symmetric level by 31 December 2012. Both ERG and the Commission are closely monitoring MTR- and FTR developments and ERG reports a positive development. So when ERG is suggesting that *"a regulated price has problems due to inherent information problems (operators do not have proper incentives to provide correct information and the competitive process of continuous setting and adjusting of prices is missing)"* we fail to see the problem. This is exactly the problems the current LRAIC cost models are supposed to minimize. However, in the present consultation, the information problem argument is used as a major justification for B&K (i.e. moving cost recovery to retail).[1] In Telenor's opinion the theoretical argument is correct, but the solution, mandatory B&K, is not addressing this better than current regulation. We note in particular that B&K cannot result in "continuous adjustment of prices".

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[1] ERG presentation Workshop, Brussels, November 4, 2009.

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Telenor has currently a very clear and simple position towards termination rates and we trust the market and regulatory authorities to find efficient ways of meeting future arbitration and competition challenges.

Telenor accepts termination rate cuts from current levels as long as they are justified by reduced costs, are symmetric and that competition is not distorted. Telenor urges regulators to take into account the effect cuts will have on end user prices. Radical changes in mobile termination rates may give the industry reduced incentives for infrastructure investments. In competitive markets, prices reflect costs and capacity cost is strictly larger than zero. Thus regulatory determined termination rates should always be above zero.

Following from this position Telenor is by principle objecting to the idea of a regulatory imposed B&K for voice calls. Needless to say, if business models develop and commercial IC-agreements between operators endorse B&K and moves the necessary cost recovery to retail services, Telenor has no problem with that. If such development is observed, ERG and individual NRA's should focus on remaining regulatory issues or any new competitive problems that may evolve.

Furthermore, the merits of hybrid charging mechanisms that could be relevant for NGN IC like capacity based charging, session based charging, reciprocity or additional charging solutions based on traffic imbalances between interconnecting parties (i.e. sophisticated forms of CPNP relevant for data) have not been adequately studied so far. Telenor would welcome more analysis of the merits of such alternatives.

1.2 About the empirical evidence provided by ERG

Telenor is also puzzled by the empirical evidence provided on effects of B&K. Based upon our best knowledge B&K is not commonly used in the three countries (USA, HK and Singapore) where the empirical data are most promising and used by the ERG to advocate mandated B&K. According to the report by Analysys Mason for Ofcom, also quoted in the Common Position, USA and HK use alternative wholesale regimes, but do have receiving party pays at retail level.[2] Singapore seems to be the only B&K country for mobile termination even though fixed termination seems to have a cost based rate.

Furthermore, the use of Merrill Lynch "Global Wireless Matrix", a data set created for commercial and financial analyses, as source for empirical analysis, is questionable without further quality assessment. Actually, the ERG would be expected to build its own data set or have one commissioned, as done recently by Ofcom.

Even if we accept the empirical data as relevant we would argue that two countries and one city is too small a basis to draw the conclusion that B&K is the optimal future charging mechanism (not to mention warranting a decision of mandating B&K by regulation). .

[2] Annex 8.1 – Report by Analysys Mason for Ofcom; Case studies of mobile termination regimes in Canada, Hong Kong, Singapore and the USA.

2. Telenor believes major risks of mandated B&K are suppressed

2.1 A robust impact analysis is needed

While Telenor appreciates the empirical data and analyses that the ERG has included in the draft Common Position, we do not believe that the cost-benefit analysis provided is sufficient given the recommended radical change in interconnection charging.. Telenor will address the somewhat biased analysis of economic effects in further detail below. In addition, many practical and operational issues have not been properly investigated or sufficiently taken into account when the recommendations are provided. Therefore, it could well be that mandatory interconnection and B&K contrary to simplify the process of interconnection and payment instead will require even more regulatory intervention to resolve new types of disputes between operators. Furthermore, the fact that mandatory B&K for interconnection cannot be properly analysed due to the lack of relevant empirical data (B&K as a voluntary solution is a totally different situation) should call for caution in interpretation of different effects of interconnection regimes. Telenor would expect a more robust cost-benefit analysis including operational aspects.

2.2 Economic impact on market players may influence competition

Decreasing or close-to-zero average termination rates do not mean that termination economic issues no longer exist for market players; much will depend on actual volumes of different IP traffic types among operators. Considerable heterogeneity (in terms of network size, network costs and traffic volumes exchanged) exists in most fixed and mobile markets and has traditionally resulted in asymmetric termination rates between mobile and fixed markets and in some countries also between entrants and incumbent operators (i.e. temporary entry assistance) under the CPNP regime – at least prior to the above-mentioned Recommendation. The suppression of this considerable heterogeneity under B&K would represent a regulatory-imposed market distortion. As long as asymmetries exist (unless full symmetry is in place) a shift from CPNP to B&K will have mixed impact on operators. It is for example generally acknowledged that mobile coverage has a different cost structure than fixed access and it should not be a priori decided that the fixed and mobile market will be one.

2.3 Likely effects of moving cost recovery to competitive retail markets

The effect of B&K and a shift of cost recovery from wholesale to retail markets is probably that retail prices need to rise to compensate for losses in the wholesale market (i.e. the waterbed effect).

Retail changes could take different forms (e.g. higher price per minute charges, larger bundles, minimum monthly spend on pre-paid tariffs, reduced handset subsidies). It is noted that in all known cases so far, B&K at wholesale level is always associated with a Receiving Party Pay (RPP) retail regime.

As highlighted by the ERG, competition in retail markets may create better incentives for cost minimization as compared to regulated wholesale prices. However, as previously mentioned, Telenor doubts that cost conservation is a major problem for termination rates at wholesale level, given current and future imposed cost models. Actually the low rates expected in short/medium term are used by the ERG elsewhere to suggest that a shift to B&K would have little economic impact on the industry. However, with termination rates = 0, and if rebalancing to retail is difficult due to strong competition, operators may face reduced investment incentives. Retail competition could also differ between market segments, thus making retail cost recovery more or less likely.

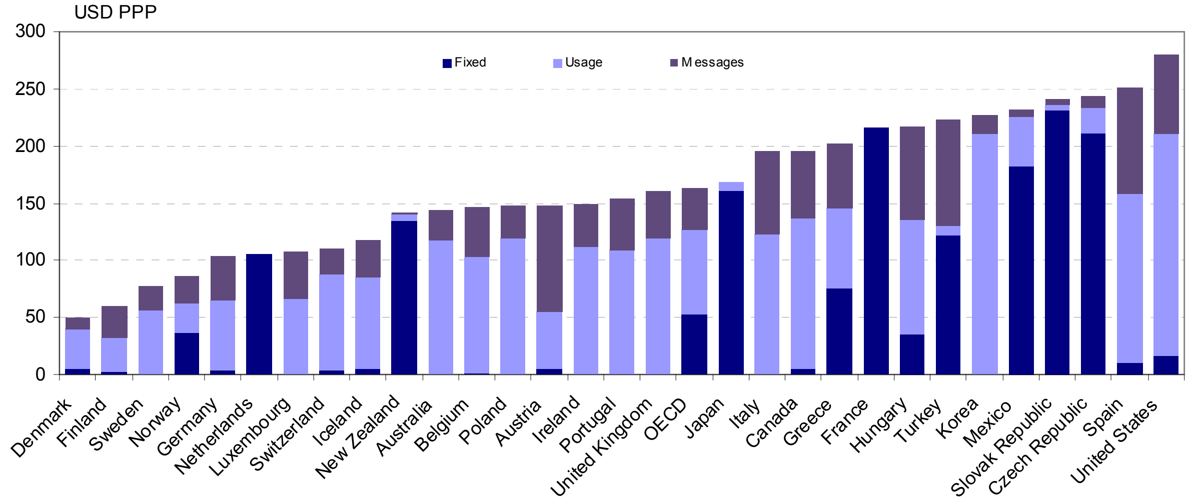
2.4 About measured welfare effects

It cannot be ruled out that given the hypothesis and the empirical data gathered and analysed already one may find sufficient support to the high-level conclusion that the introduction of B&K

would result in higher consumer welfare. However, the total welfare effect critically depends on network and call externality values, the former being arbitrarily understated and the latter overstated in the ERG consultation.

Referring to the draft Common Position, figure 1 on page 24 shows how revenues per minute (RPM) vary with minutes of use per capita (MoU) for a selection of CPNP countries and a selection of B&K countries. Figure 2 on page 25 plot mobile penetration against MTR for the same countries, concluding that there are no correlation between mobile penetration and MTR. We would like to emphasise that the numbers in figure 1 and 2 are all observations on the average customer. Figure 1 does not regard RPM for low volume segments versus high volume segments. Even though countries indicated as B&K countries have low RPM for the average customer, it is possible that low volume customers in these countries still pay a significantly higher price per minute as compared to low volume customers in other countries.

In Telenor's view such comparison will be better reflected in alternative benchmarks like the OECD Outlook 2009 which compares across similar customers groups. See example *figure 7.9. OECD mobile low-usage basket, August 2008* below.[3]



2.5 Is it fair to let low volume customers pay for a theoretical increase in total welfare?

It is well-known that „all-you-can-eat" type price plans (including most of flat rate and bucket packages offered by telecommunications operators) are favouring large users, whereas prepaid subscriptions or low fixed subscription fees are important for low volume segments. Preserving customer choice is an important regulatory objective and it should not be seen as a regulatory objective to stimulate a specific type of retail tariffs.

We will shortly explain the basic relationship between the wholesale and retail markets from an operator perspective and the likely impact on the same operator's incentives to offer attractive price plans for the low volume/low ARPU customers of a shift to mandated B&K (i.e. if the Eurpean customers have same patterns as the Norwegian where we have provided data).

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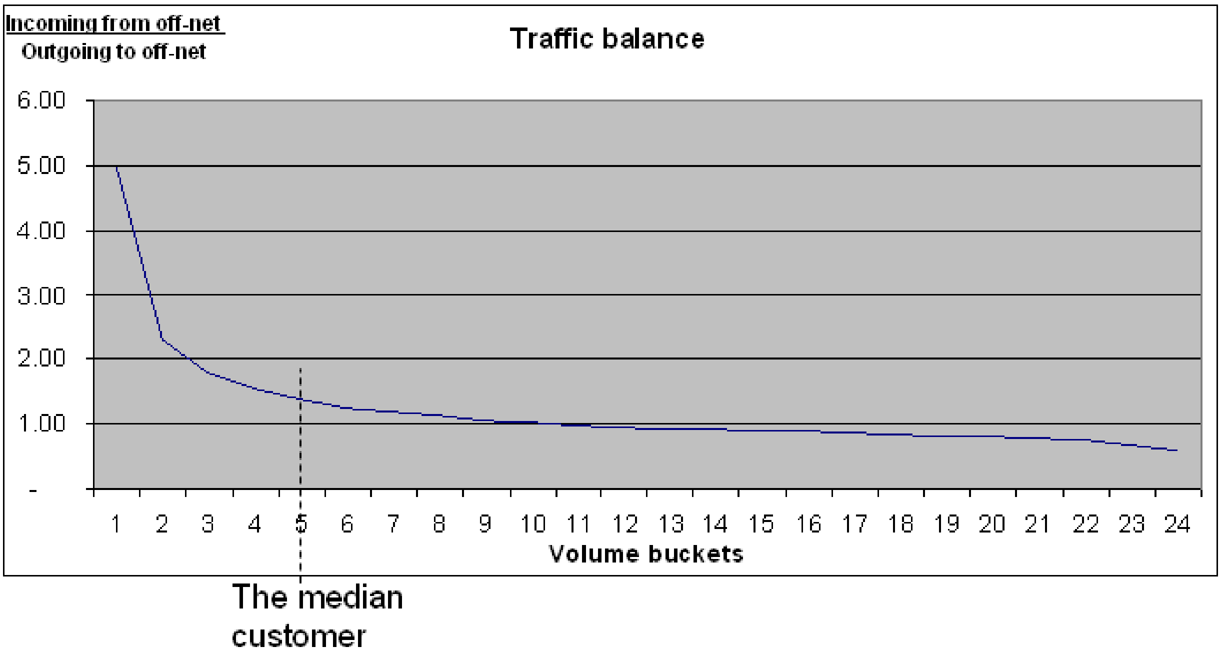
[3] The OECD data has been critizised for using unrepresentative "representative" call packages. We fully acknowlegd that what is chosen as the representative calling profile does matter a lot for outcome. ERG has chosen another approach – not to care about different calling profiles of different segments.

It is likely to expect that customers vary in their traffic balance, i.e. some customer groups have more incoming than outgoing traffic, while others have more outgoing traffic than incoming.

If termination rates are above cost (notice that B&K per se indicates a termination rate below cost as TR=0)), operators makes profit in the interconnection market by attracting customers with more incoming traffic than outgoing. On the other hand, by attracting customers with more outgoing traffic than incoming, the operator makes a loss in the interconnection market. With termination rates above cost the customers with more incoming traffic than outgoing traffic will be relatively more attractive compared to a situation with termination rates equal to or below cost. With termination rates below cost (as in the case of B&K as an extreme), the customers with more outgoing traffic than incoming traffic become relatively more attractive.[4]

Empirical data from markets where Telenor is a mobile operator shows that on average the low volume users are termination intensive, i.e. have more incoming traffic than outgoing, while the high volume users are origination intensive. This is in particular the case in the Norwegian market.[5]

The figure below shows the traffic balance of off-net traffic for the mobile business of Telenor in Norway. The figure is constructed by first splitting the customers into different volume baskets (basket 1-24). Each basket represents the same amount of minutes, not customers. For each volume basket, we have calculated the amount of incoming voice from competitors (off-net) divided on the amount of outgoing voice to competitors. The customers with little outgoing traffic, i.e. the customers in the first baskets, have several times more incoming than outgoing traffic.



[4] This is discussed further in “Regulation of mobile termination rates –possible effects of a bill and keep regime” (http://www.telenor.com/en/resources/images/r4_09_tcm28-37882.pdf)

[5] We also see the similar trend in other European subsidiaries. Montenegrin figures for Promonte show very similar calling pattern as Figure 1 shows for Norway. In Hungary, almost 6% of Pannon’s customers use the mobile only to be called, while for 19% of customers, received calls seriously outnumber their outgoing calls. This is a fairly large group, and their mobile usage would, absent termination revenues, be hard to finance from revenues generated by the other 80% of customers.

Figure 1: Traffic balance between the Norwegian incumbent and other operators in Norway split on customers' voice volumes

Next, we have grouped the customers after their monthly expenditures on voice calls and fixed subscription fee. Doing so we find the same pattern as volumes; the customers with very little monthly expenditures have much more incoming traffic than outgoing traffic. Actually, some customers have zero expenditure on voice and fixed fee (referring to the customers in group 0). These customers have almost 14 times more incoming traffic from Telenor's competitors than they call off-net. These customers generate very little profit to the operator in the retail market, but if termination rates are above (marginal) cost, these customers may generate some profit to the operator in the interconnection market.

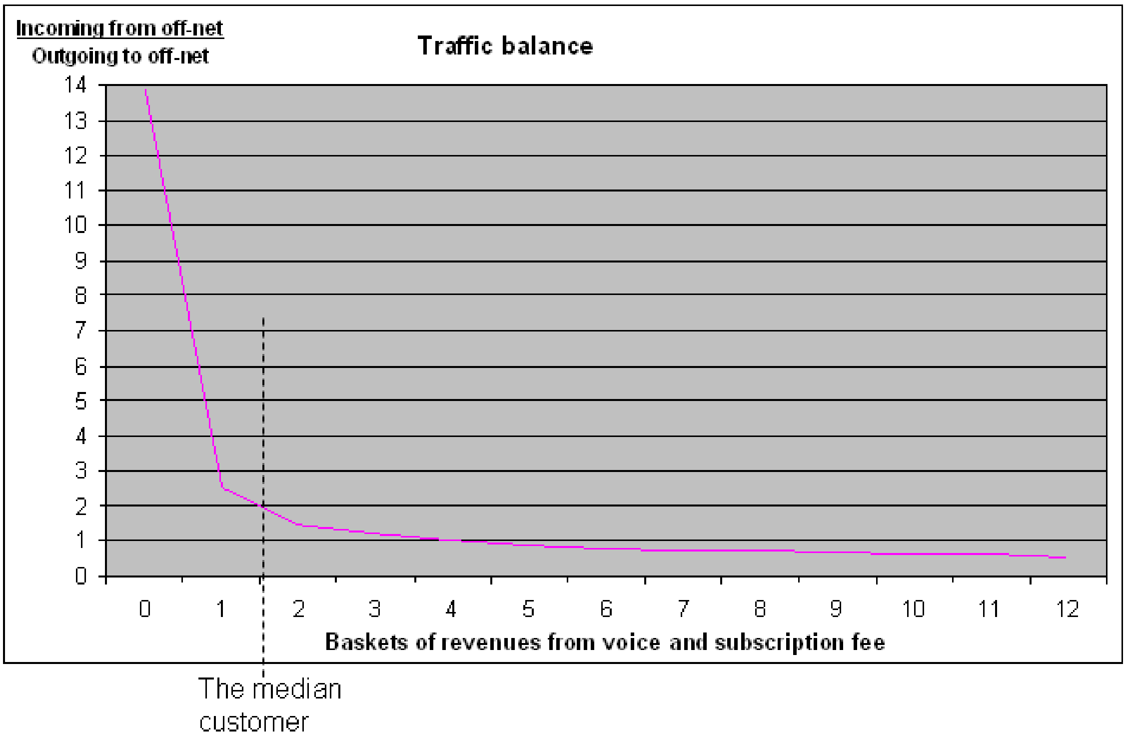


Figure 2: Traffic balance between the Norwegian incumbent and other operators in Norway split on customers' expenditures

With such traffic patterns, low volume and low ARPU customers are relatively more attractive in a regime with termination rates above cost. With termination rates above cost, low volume and low ARPU customers generates a positive interconnection balance, and hence the operators will compete more aggressively for these customers in a regime with termination rates above cost, than with termination rates below cost, including B&K as an extreme case. A possible positive welfare effect from reducing termination rates is created from a welfare gain for high volume and high ARPU customer, but at the sacrifice of the lower volume and lower ARPU customers.

If sample data from Telenor markets also are representative, a mandated shift to B&K would probably be against most of the objectives the European Union about e-inclusion and accessibility for all.

2.6 Will B&K reduce regulatory cost or uncertainty?

The draft Common Position claims that B&K will significantly reduce regulatory cost and uncertainty. This is undisputed when it comes to the pricing of termination services (defined as from POI for the terminating network). However, some practical and operational issues that would imply higher involvement of NRAs in detailed network operations issues are more or less ignored and could in sum alter the conclusion. The main challenges are briefly discussed below:

Anyone can interconnect?
Due to the free access to the network and technological developments many new players will be interested in interconnection. To allow all parties to interconnect irrespective of having commercial activity in the sector or having symmetry in traffic (i.e. are allowed to send traffic without bearing any cost of the network infrastructure used to transmit the data/call) are not sustainable. Thus, one has to distinguish between interconnect partners and customers. In the Internet this is solved by having two contract types: peering and transit. Peering has similarities to B&K. In the Internet the decision with respect to contract type is done in negotiations and via commercial agreements. With mandated B&K NRAs would have to sort out these issues. Furthermore, new candidates will bring traffic but not the financial resources necessary to maintain and develop the network infrastructure, generating congestion and consequently quality problems. In due time, the regulator will realise this challenge and then issue a list of criteria for a company to be connected in order to limit the problem. Typically this would be some form of symmetrical arrangements / reciprocity. However, this may again lead to litigations on the grounds of discrimination and regulatory capture, as not the same terms and conditions applies to all operators. History has told us that B&K can also lead to arbitrage and regulatory disputes over business practices.[6]

New types of disputes may emerge
We also question the ERG's conclusion that an introduction of a B&K regime would reduce the work of NRAs as regards interconnection:
- Regulatory pricing disputes among operators will be changed into more critical operational disputes, placing at risk actual networks operations; Examples are location of point of interconnection and so called "hot potato routing", routing and metering problems occur when different traffic flows have to be identified creating extra costs.
- Eliminating pricing as a regulatory tool is unwise in the perspective of ensuring that the regulatory framework is flexible enough to address future challenges. Who will decide the capacity of the interconnection? When two parties cannot use price they will use IC capacity as negotiation tool. Demand is constantly growing, but who will bear the investment if monetization of investments in capacity are uncertain?

The draft Common Position focuses strictly on termination services, failing to address how important transit services are to be treated and charged.
Based on the draft Common Position it is not easy to understand how bilateral end-to-end operators should arrange transit or how third party transit provider's business models will be influenced. The case is likely that the integrated operators have the right to price and negotiate on transit (but not termination) when entering into bilateral IC agreements. The problem remains with respect to deciding on where the boundary between transit and termination is.

Simplified billing?
One of the supposed attractions of B&K is the lower costs of operating a simplified interconnection billing. Telenor challenges the ERG assumption that B&K will automatically minimise transactions costs.

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[6] E.g. the pre 2004 B&K arrangements between mobile operators in France were exploited by some fixed operators disguised fixed to mobile traffic into mobile to mobile traffic in order to benefit from free mobile termination. The GSM gateways generated local overload and an inefficient usage of frequency spectrum and lower QoS for regular mobile users.

- As with transit and CPS interconnection, Freefone and premium rate retail services require charging for traffic at the interconnection handover point and the maintenance of billing systems. These business models must likely be supported by any proposed regime. It can also be argued that CPNP provides better incentives and already provides practical commercial arrangements for different types of retail tariff for special numbers ("green and blue numbers") involving revenue sharing.
- The draft Common Position recognises that B&K is only appropriate for "final switch" termination so in the context of interconnecting multi-service NGNs there will be no reduction of complexity in the interconnection billing requirement arising from a mandatory move to B&K.

2.7 Negative impact on quality of service (QoS) levels

The ERG also discounts the major 'free-rider' problem which would be created under a B&K regime and the consequences for investment for network maintenance and expansion. B&K would destroy network investments incentives, in particular, when symmetry of interconnection partners plays no role, as proposed in the draft Common Position.

We also reject the ERG statement that B&K would not lead to a lower QoS levels. Mandated B&K as proposed in the draft Common Position would lead to adverse selection in the context of QoS. As network operators would not be compensated for the network usage, the higher costs incurred in providing higher QoS than 'best effort' transport could not be recovered. Accordingly, the incentive to invest in QoS declines. Moreover, given that the quality of voice service is the sum of the quality parameters of an end-to-end connection, this could lead to free rider problems in context of QoS investment.

3. Telenor has concerns about several implementation issues

3.1 Is a Common Position that recommends mandating B&K in medium term timely?

Telenor advocates proper analysis of long term regulatory approaches to interconnection. It is needed and important. Telenor does not, however, understand the motivation for giving much attention to advocating B&K for the voice service, at this point in time.

Telenor doubts the realism in some of the statements about the introduction of 'Bill and Keep' (e.g. "within the regulatory period related to the next market analysis") given the actual regulatory provisions in place in many ERG member countries (incl. asymmetric situations) and that the European Commission's "Recommendation on the Regulatory Treatment of Fixed and Mobile Termination Rates" recommends "pure LRIC" as reference for termination price from 2013 onward in a calling party network pays (CPNP) context.

The timing of an ERG Common Position appears premature. Telenor would propose to shift status of the document to a report or to postpone any adoption of a Common Position awaiting further analysis.

3.2 What is the legal basis to impose mandatory B&K?

The adoption of an ERG CP also looks premature in view of the fact that the draft provides no answers as to the legal basis for the proposed regime change and to the effects of the proposed approach on the single market. There is no mention in the draft Common Position of which legal basis – if one exists within the Framework – that NRAs would use to impose mandatory B&K. In several places in the text of the draft Common Position, however, the ERG refers to when "B&K is applied as a regulatory obligation," implying that the regime might be imposed by asymmetrical regulation under the SMP regime of the Framework. This draft Common Position is incomplete without more accurate treatment of this issue.

Telenor suggests that at a minimum a proper discussion of the cost orientation concept must be included in the ERG analysis.

3.3 How should harmonised implementation be safeguarded?

If there was truly a consensus among ERG members that B&K would be the best alternative for the interconnection of communication networks in the long-term, it would need to be implemented in all EU member states at the same time - at some appropriate time in the future. Uncoordinated, county-by-country imposition/adoption is not in the interest of the internal market. Telenor calls upon the ERG to better assess the impact of the conclusion that when B&K is introduced in a certain domain (country, or group of countries), while other countries use the CPNP regime, a subsidy from the B&K domain to the CPNP domain cannot be prevented.

Uncoordinated, county-by-country imposition/adoption and implementation as suggested by the draft Common Position would lead to market fragmentation and a non-level playing field, significantly impacting the operation of the EU single market.

3.4 Alignment with Commission initiatives is necessary

Telenor also acknowledge that the European Commission DG Infosoc has recently commissioned another expert study on "THE FUTURE OF INTERCONNECTION CHARGING METHODS". According to the tendering material the overall objective of the study is (our emphasis):

> "..to analyse the likely evolution as well as the impact of an introduction of BAK on the migration process towards IP network interconnection, assuming a lowering of network termination fees in the medium term, <u>and to identify any necessary regulatory requirements at national and European levels so as to avoid regulatory fragmentation and to ensure the appropriate level of co-ordination in regulatory intervention across the EU. "</u>
>
> "..analyse the likelihood of a wide-spread use of BAK as well as its merits and drawbacks as <u>compared to other charging mechanisms, its impact on convergence trend, on competition in the market, on investment and innovation in the telecoms sector and any spill-over effects on adjacent sectors</u>, on consumer benefits, the overall contribution of a transition to BAK on the growth and competitiveness of the EU economy, and lastly the magnitude of required regulatory oversight at national and European levels."

Telenor is at unease about the unclear linkage and value of the separate efforts by the ERG and EC on this topic.

4. Answers to the consultation questions

Question1: Do you agree that in a multi-service NGN environment, in which different services use a shared transport layer, different interconnection regimes for different services could create arbitrage problems? If yes, could you describe the problems that you foresee or that have already occurred. If no, what prevents these arbitrage problems in your view?

Telenor answer: Yes, it could be that different IC regimes for different services could create arbitrage problems. It is basically a similar effect that could be observed when e.g. rates for local and international voice termination differ in a country and it is possible to manipulate call origination information. If rates are cost reflective and do not differentiate on the origin of the session/call we would trust commercial IC agreements and management systems to solve the potential challenges even in an NGN environment. See section 1 above for further elaboration.

Question2: What is the influence of the separation of transport and service for the interconnection regime and in particular the charging mechanism and in what way are NGNs and BaK related?

Telenor answer: Telenor rejects the total decoupling of service and transport for IP connectivity. Such separation as proposed in the draft Common Position would not allow the end-to-end quality of service (QoS) necessary to provide high-quality, time-critical services in an NGN environment. NGNs are and will be “service aware” as ERG calls it. In order to guarantee a certain quality level some services should be prioritized over other services in the network. For services that require prioritization other wholesale charging mechanisms can apply than for services that are not prioritized. See section 1 above for further elaboration.
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Question3: How would you define the boundary for the application of BaK and where should it be located (i.e. points of interconnection where BaK is applicable)?

Telenor answer: The question raises the problem defining on what level in the network interconnection should take place in case of a B&K regime. This is a very good example of new regulatory challenges that occur when operators are forced by regulation to adopt B&K. One of the objectives of introducing B&K is, according to ERG, to avoid unnecessarily complex regulation. B&K can however lead to a need for more regulation (besides price regulation where prices are zero): e.g. need to regulate on what level in the network interconnect should be realized, regulation in order avoid spam, regulation to avoid call back schemes, etc. Is this really the way forward? See section 2.6 above for further elaboration.

Question4: What is your conclusion on the relationship between the charging mechanism and penetration, usage and price level?

Telenor answer: See sections 2.3, 2.4 and 2.5 above.. Furthermore, the OECD baskets (published 11 August 2009) show a supplementary pattern: USA is the most expensive country for medium and low volume customers and 25% more expensive than the OECD average for high-usage customers. ERG does not mention these figures at all, not even in a footnote.

Question5: How does BaK affect regulatory certainty and the risk of legal disputes?

Telenor answer: See section 2.6 above. It is true that CPNP based price regulation initially resulted in regulatory costs (NRAs that calculate costs and operators that provide data and check the NRA’s calculations) and regulatory uncertainty (in some countries decisions from the NRAs were appealed, there is always uncertainty when it is time to update or revise cost calculations). However, the regulatory costs and uncertainty have decreased the last few years, at least in some countries. NRAs and operators have built up knowledge and experience with cost calculation. In for instance Sweden operators lost all their appeals regarding cost based MTRs and FTRs which led to fewer appeals and less regulatory uncertainty. Changing the principles for price regulation to B&K-like models will probably lead to new legal disputes. The remaining regulatory costs related to CPNP price regulation should be weighed against the risks associated with unexpected results of B&K regulation, which may seriously harm certain groups of customers, technical innovation and certain operators.

Question6: How do different wholesale charging mechanisms impact on the number of unwanted calls? Do you expect (other) effects on consumers/consumer groups? Where possible, provide a quantitative assessment of the expected effects.

Telenor answer: Telenor doesn't have any figures but it would be a surprise if B&K would not lead to an increase in unsolicited calls to mobile numbers. See also link to attached R&I report, below.

We also think that the risk of voice spam with B&K is greater than ERG indicates. Voice spam, as it is in real time, interrupting any activities (unlike e-mail, which has a more offline nature) could be a serious nuisance for all mobile users. Spam would probably be a greater problem for business users. This may lead to the situation when the overall usefulness of the service decreases, customers become reluctant to give their number to others, and important calls cannot be established. Alternative services may appear to meet this demand, but the outcome is rather unclear.

Question7: How do you assess the quantitative relevance of call and network externalities?

Telenor answer: Network externalities are still important also in mature markets. The utility of being connected will increase from connecting for example children and elderly people. Network externalities should therefore still be taken into account.

In Telenor's view, call externalities are already to a large extent internalised.

Question8: How would your business be affected by a move from CPNP to BaK? Please explain the expected impact on prices, volume of supplied services and profit.

Telenor answer: The general effect of B&K on Telenor operations is explained in sections 2.2, 2.3. 2.4, 2.5 above. We see risks with the transition to B&K, this would probably involve a learning curve for many operators (and customers?) that could be costly. There might also be a threat for our mobile voice business from new players that would compete with our mobile voice offers by offering applications in the mobile phones of our customers that connect to equipment outside of our network for call set up (see section 6.2 on call back schemes in the draft CP). We may have to assume much less contribution from voice services when making decisions about future investments in our mobile network.

Question9: Do you agree with the conclusion that operators/users in the BaK domain will subsidise traffic coming from outside the domain (regardless of the legal aspect)? Are there any mechanisms to prevent this and how will they work in your view, in particular to avoid arbitrage?

Telenor answer: Telenor agrees with conclusion that B&K leads a situation where operators and customers in the B&K domain will subsidize traffic coming from outside the domain. We think it will be impossible in practice to avoid this unless you implement B&K simultaneously across the world. See also section 3.3.

Question10: Do you see any implementation problems for a migration period towards BaK? How could such problems be addressed?

Telenor answer: See section 3 above. Telenor sees risks with a migration to B&K, mainly because this has not been done before and would represent a huge regulatory experiment. Operators will have to change their offers to their customers. This will probably mean a learning curve which may be costly (loss of market share, lower margins). As mentioned before, we seriously doubt if ERG's conclusion that B&K will lead to higher consumer and social welfare is correct. We concur with ERG's statement on p 55 that the uncertainty regarding the effects of B&K are a reason to be cautious and to keep on monitoring the effects of decreasing termination rates in the current regime a few more years.

If mandatory BaK were to be imposed by NRAs, migration issues and timing would be critical. The most important issue will always be the glide-path foreseen and the termination rates starting point at the start of the migration. As for the speed any change must allow for sufficient time for retail business models to adapt and networks and support systems to be developed.

Question11: Does the draft CP miss any other relevant issues?

Telenor answer: See sections 1, 2 and 3.

Telenor further elaborate on issues concerning B&K in Telenor R&I Research Report 4/2009 "Regulation of mobile termination rates –possible effects of a bill and keep regime" (see http://www.telenor.com/en/resources/images/r4_09_tcm28-37882.pdf)

If you have questions related to this response from Telenor Group, please contact:

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About Telenor Group

Telenor Group is a global provider of electronic communications networks and services. We have a leading position as an integrated operator in Norway, Sweden, Denmark and a strong mobile position in Hungary, Serbia and Montenegro. Telenor also has a strong presence in Russia and Ukraine and in Asia. Telenor offers a variety of services on all platforms, including mobile voice and data communications services throughout its footprint, and telephony, broadband as well as television distribution services over digital terrestrial, cable and satellite networks in the Nordics.

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